

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: ZALIKOVA, TATYANA Examiner #: 76608 Date: 4/10/03  
 Art Unit: 1713 Phone Number 303-28819 Serial Number: 09417679  
 Mail Box and Bldg/Room Location: CP3 8E16 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: See attached

Inventors (please provide full names): " " "

Earliest Priority Filing Date: 108/01/2000

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Compound of claim 3, wherein R<sub>2</sub>  
 can be other than stated in claim  
 but should comply with the formula:

Thank you very much.

T. Z.

## STAFF USE ONLY

## Type of Search

## Vendors and cost where applicable

Searcher: <u>X. Fuller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone # _____	Structure (#) <u>6</u>	Dialog _____
Searcher Location: _____	Bibliographic _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Litigation _____	Dr. Link _____
Date Completed: <u>4/15/03</u>	Fulltext _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>20</u>	Patent Family _____	Sequence Systems _____
Clerical Prep Time: _____	Other _____	WWW/Internet _____
Online Time: <u>55</u>		Other (specify) _____

=> FILE REG

FILE 'REGISTRY' ENTERED AT 14:54:30 ON 15 APR 2003

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 APR 2003 HIGHEST RN 502958-40-9

DICTIONARY FILE UPDATES: 14 APR 2003 HIGHEST RN 502958-40-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

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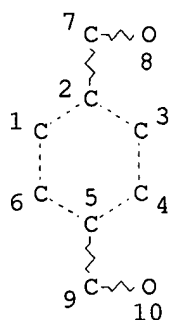
FILE COVERS 1907 - 15 Apr 2003 VOL 138 ISS 16

FILE LAST UPDATED: 14 Apr 2003 (20030414/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE L48

L3 STR

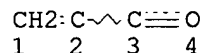


Structure 1

NODE ATTRIBUTES:  
CONNECT IS E1 RC AT 8  
CONNECT IS E1 RC AT 10  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 10

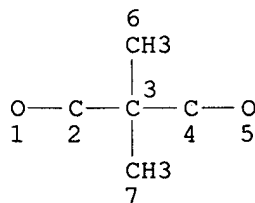
STEREO ATTRIBUTES: NONE  
L4 STR 2



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE  
L9 4197 SEA FILE=REGISTRY SSS FUL L3 AND L4  
L10 STR



Subset search with this structure  
of 4,197

912 compounds

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 7

## STEREO ATTRIBUTES: NONE

L14 912 SEA FILE=REGISTRY SUB=L9 SSS FUL L10  
 L15 416 SEA FILE=HCAPLUS ABB=ON L14  
 L16 250 SEA FILE=HCAPLUS ABB=ON L15(L) (PREP OR IMF OR SPN)/RL  
 L17 12 SEA FILE=HCAPLUS ABB=ON L16(L) BINDER?  
 L20 STR

O—Ak—O—Ak—O  
 1 2 3 4 5

*Subset search with this structure*

## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

*704 compounds*

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 5

## STEREO ATTRIBUTES: NONE

L22 704 SEA FILE=REGISTRY SUB=L9 SSS FUL L20  
 L23 167072 SEA FILE=REGISTRY ABB=ON POLYESTER/PCT  
 L24 498 SEA FILE=REGISTRY ABB=ON L22 AND L23  
 L25 275052 SEA FILE=REGISTRY ABB=ON POLYACRYLIC/PCT  
 L26 477 SEA FILE=REGISTRY ABB=ON L24 AND L25  
 L27 227111 SEA FILE=REGISTRY ABB=ON POLYETHER/PCT  
 L28 369 SEA FILE=REGISTRY ABB=ON L26 AND L27  
 L29 230 SEA FILE=HCAPLUS ABB=ON L28  
 L31 129 SEA FILE=HCAPLUS ABB=ON L29(L) (PREP OR IMF OR SPN OR POF)/RL  
 L32 12 SEA FILE=HCAPLUS ABB=ON L31(L) BINDER?  
 L33 3 SEA FILE=REGISTRY ABB=ON PET/CN  
 L34 60365 SEA FILE=HCAPLUS ABB=ON L33  
 L35 11340 SEA FILE=HCAPLUS ABB=ON L34(L) (PREP OR IMF OR SPN OR POF)/RL  
 L36 156 SEA FILE=HCAPLUS ABB=ON L35(L) ?ACRYL?  
 L37 2 SEA FILE=HCAPLUS ABB=ON L36(L) BINDER?  
 L38 23 SEA FILE=HCAPLUS ABB=ON L17 OR L32 OR L37  
 L39 2 SEA FILE=HCAPLUS ABB=ON L36(L) OLIGOM?  
 L40 3 SEA FILE=HCAPLUS ABB=ON (L16 OR L31) (L) OLIG?  
 L41 4 SEA FILE=HCAPLUS ABB=ON L36(L) OLIG?  
 L42 28 SEA FILE=HCAPLUS ABB=ON (L38 OR L39 OR L40 OR L41)  
 L43 5 SEA FILE=HCAPLUS ABB=ON L16(L) POF/RL(L) (BINDER? OR OLIG?)  
 L44 28 SEA FILE=HCAPLUS ABB=ON L42 OR L43  
 L\*\*\* ANALYZE L\*\*\* 1- RN LNK\$ : 38 TERMS  
 L45 39 SEA FILE=REGISTRY ABB=ON L\*\*\* OR L33  
 L46 11415 SEA FILE=HCAPLUS ABB=ON L45(L) (PREP OR IMF OR SPN OR POF)/RL  
 L47 4 SEA FILE=HCAPLUS ABB=ON L46(L) ?ACRYL?(L) (BINDER? OR OLIG?)  
 L48 28 SEA FILE=HCAPLUS ABB=ON L44 OR L47

=> D L48 ALL 1-28 HITSTR

L48 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 2003:216775 HCAPLUS

DN 138:230844

TI Coated polyester film with high blocking resistance for  
 high-recording-density magnetic recording medium base film

IN Tojo, Mitsumine; Murooka, Hirofumi

PA Teijin-Du Pont Film Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM B32B027-36  
 ICS G11B005-73  
 CC 77-8 (Magnetic Phenomena)  
 Section cross-reference(s): 38, 46  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003080652	A2	20030319	JP 2001-276319	20010912
PRAI	JP 2001-276319		20010912		

AB The polyester [e.g., poly(ethylene terephthalate), polyethylene-2,6-naphthalene dicarboxylate] film for a digital recording-type magnetic tape, etc., has a coating layer contg. binder resins, inert particles, and surfactants comprising (A) 0.5-15% (based on coating layer wt.) primary surfactants having HLB value 10-14 and (B) 1-10% secondary surfactants having HLB value 16-20. The other side of the film may be coated with a layer contg. cellulose derivs. and surfactants. A magnetic recording medium consisting of the coated film, a magnetic layer (e.g., ferromagnetic metal film) on the former coating layer, and a back coating layer on the other side of the film, is also claimed.

ST magnetic tape polyester film coating surfactant

IT Alcohols, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (C11-15-secondary, ethoxylated, surfactant, Nonipol Soft SS 70; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)

IT Polyesters, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (acrylic, binder, coating layer contg.; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)

IT Magnetic tapes  
 Plastic films  
 Surfactants  
 (blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)

IT Polyesters, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)

IT Acrylic polymers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (particles, coating layer contg.; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)

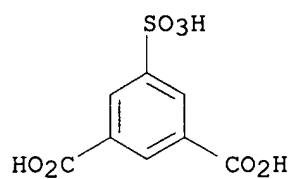
IT **345300-53-0P**, Butyl acrylate-diethylene glycol-ethylene glycol-glycidyl methacrylate-isophthalic acid-methyl methacrylate-5-sodiosulfoisophthalic acid-terephthalic acid copolymer 501037-16-7P, Diethylene glycol-ethylene glycol-glycidyl methacrylate-isophthalic acid-methyl methacrylate-5-sodiosulfoisophthalic acid copolymer  
 RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (binder, coating layer contg.; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic

- recording medium)
- IT 26915-97-9, Ethyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer 87139-72-8, Diethylene glycol-ethylene glycol-isophthalic acid-5-sodiosulfoisophthalic acid-terephthalic acid copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(binder, coating layer contg.; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)
- IT 24968-11-4P 25038-59-9P, Dimethyl terephthalate-ethylene glycol copolymer, uses 25853-85-4P, Dimethyl 2,6-naphthalenedicarboxylate-ethylene glycol copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)
- IT 9004-67-5, Methylcellulose  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coating layer contg.; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)
- IT 11104-61-3, Cobalt oxide  
RL: TEM (Technical or engineered material use); USES (Uses)  
(magnetic layer; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)
- IT 9016-45-9, Nonipol 100 9036-19-5, Octapol 80 9063-89-2, Octapol 400 220204-87-5, Nonipol 700  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surfactant; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)
- IT **345300-53-0P**, Butyl acrylate-diethylene glycol-ethylene glycol-glycidyl methacrylate-isophthalic acid-methyl methacrylate-5-sodiosulfoisophthalic acid-terephthalic acid copolymer  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(**binder**, coating layer contg.; blocking-resistant polyester film coated with surfactant-contg. layer for high-recording-d. magnetic recording medium)
- RN 345300-53-0 HCAPLUS
- CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, butyl 2-propenoate, 1,2-ethanediol, methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 6362-79-4

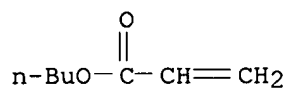
CMF C8 H6 O7 S . Na



● Na

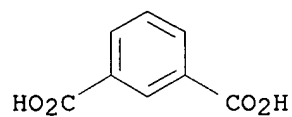
CM 2

CRN 141-32-2  
CMF C7 H12 O2



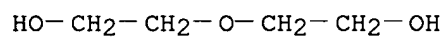
CM 3

CRN 121-91-5  
CMF C8 H6 O4



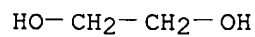
CM 4

CRN 111-46-6  
CMF C4 H10 O3



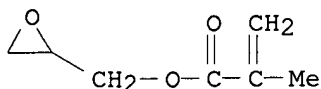
CM 5

CRN 107-21-1  
CMF C2 H6 O2



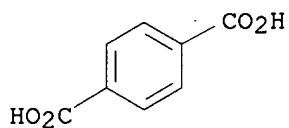
CM 6

CRN 106-91-2  
CMF C7 H10 O3



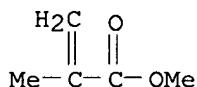
CM 7

CRN 100-21-0  
CMF C8 H6 O4



CM 8

CRN 80-62-6  
CMF C5 H8 O2



L48 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:489019 HCAPLUS

DN 137:202212

TI On the UV curability and mechanical properties of novel binder systems derived from poly(ethylene terephthalate) (PET) waste for solventless magnetic tape manufacturing, 2 methacrylated oligoesters

AU Farahat, Medhat S.; Nikles, David E.

CS Center for Materials for Information Technology, University of Alabama, Tuscaloosa, AL, 35487-0209, USA

SO Macromolecular Materials and Engineering (2002), 287(5), 353-362  
CODEN: MMENFA; ISSN: 1438-7492

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 35

AB Recycling of poly(ethylene terephthalate) PET waste by chem. methods is a well-known process that generates value-added products. Depolymn. products of PET recycling were commonly applied as starting materials for the synthesis of polyurethanes, satd. and unsatd. polyester resins. In



this current work we are reporting on a novel application of the depolymd. products obtained by glycolysis of PET by converting the hydroxyl functional groups to methacrylate groups. The obtained methacrylated oligoesters were tested for UV curability by UV irradiation, in the presence of 2-benzyl-2-dimethylamino-1-(4-morpholinophenyl)-1-butanone (BDMB) as a photo initiator. This gave cured films of high mech. properties when these methacrylated oligoesters were either cured alone or as mixts. with other com. available diacrylate/dimethacrylate monomers. The measured tensile properties were in the range of 7.21-43 MPa for max. tensile strength and 0.90-3.0 GPa for Young's modulus.

- ST PET glycolysis diol methacrylate binder magnetic tape; UV cured PET methacrylate diacrylate compn
- IT Tensile strength
  - (at break; property of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)
- IT Transesterification
  - (in prepn. of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)
- IT Polyesters, properties
  - RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
  - (in prepn. of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)
- IT Polymerization
  - (photopolymer.; in prepn. of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)
- IT Binders
  - Glycolysis
  - Magnetic tapes
  - Recycling of plastics and rubbers
    - (prepn. of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)
- IT Elongation, mechanical
  - Young's modulus
    - (property of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)
- IT Polyesters, preparation
  - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
  - (unsatd.; in prepn. of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)
- IT 920-46-7, Methacryloyl chloride
  - RL: RCT (Reactant); RACT (Reactant or reagent)
  - (in prepn. of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)
- IT 25052-77-1P, Diethylene glycol-ethylene glycol-terephthalic acid copolymer
  - RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
  - (polyester polyol; in prepn. of UV curable binder compn. based on methacrylate monomer of glycolized poly(ethylene terephthalate) (PET)

waste for magnetic tape manufg.)

IT 452963-93-8P, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate homopolymer 452963-94-9P, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-diethylene glycol diacrylate copolymer 452963-95-0P, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-diethylene glycol dimethacrylate copolymer 452963-96-1P, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-triethylene glycol dimethacrylate copolymer 452963-97-2P, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-hexanediol diacrylate copolymer 452963-98-3P, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-hexanediol dimethacrylate copolymer

RL: PRP (Properties); SPN (Synthetic preparation); PREP

(Preparation)

(prepn. of UV curable binder compn. based on methacrylate monomer of glycolyzed poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)

IT 452963-92-7P, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(unsatd. polyester; in prepn. of UV curable binder compn. based on methacrylate monomer of glycolyzed poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)

RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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 (40) Rebeiz, K; J Mater Civil Eng 1995, V7, P129 HCAPLUS  
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IT **452963-93-8P**, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate homopolymer **452963-94-9P**, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-diethylene glycol diacrylate copolymer **452963-95-0P**, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-diethylene glycol dimethacrylate copolymer **452963-96-1P**, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-triethylene glycol dimethacrylate copolymer **452963-97-2P**, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-hexanediol diacrylate copolymer **452963-98-3P**, Diethylene glycol-ethylene glycol-terephthalic acid copolymer methacrylate-hexanediol dimethacrylate copolymer  
 RL: PRP (Properties); **SPN (Synthetic preparation); PREP (Preparation)**  
 (prepn. of UV curable **binder** compn. based on methacrylate monomer of glycolyzed poly(ethylene terephthalate) (PET) waste for magnetic tape manufg.)

RN 452963-93-8 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and 2,2'-oxybis[ethanol], 2-methyl-2-propenoate, homopolymer (9CI) (CA INDEX NAME)

CM 1

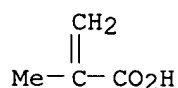
CRN 452963-92-7

CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C4 H6 O2

CM 2

CRN 79-41-4

CMF C4 H6 O2

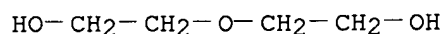


CM 3

CRN 25052-77-1  
 CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2) x  
 CCI PMS

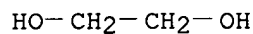
CM 4

CRN 111-46-6  
 CMF C4 H10 O3



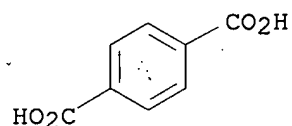
CM 5

CRN 107-21-1  
 CMF C2 H6 O2



CM 6

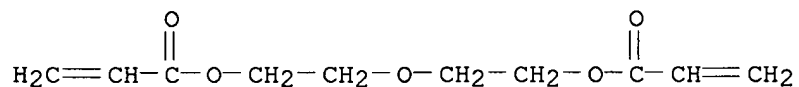
CRN 100-21-0  
 CMF C8 H6 O4



RN 452963-94-9 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and 2,2'-oxybis[ethanol], 2-methyl-2-propenoate, polymer with oxydi-2,1-ethanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 4074-88-8  
 CMF C10 H14 O5

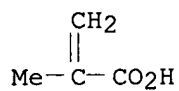


CM 2

CRN 452963-92-7  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C4 H6 O2

CM 3

CRN 79-41-4  
CMF C4 H6 O2

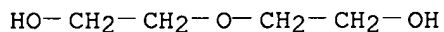


CM 4

CRN 25052-77-1  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x  
CCI PMS

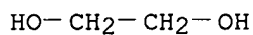
CM 5

CRN 111-46-6  
CMF C4 H10 O3



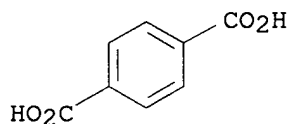
CM 6

CRN 107-21-1  
CMF C2 H6 O2



CM 7

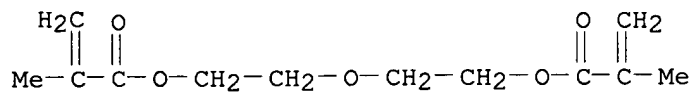
CRN 100-21-0  
CMF C8 H6 O4



RN 452963-95-0 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and  
2,2'-oxybis[ethanol], 2-methyl-2-propenoate, polymer with  
oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 2358-84-1  
CMF C12 H18 O5

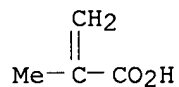


CM 2

CRN 452963-92-7  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C4 H6 O2

CM 3

CRN 79-41-4  
CMF C4 H6 O2

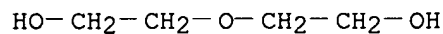


CM 4

CRN 25052-77-1  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x  
CCI PMS

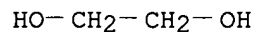
CM 5

CRN 111-46-6  
CMF C4 H10 O3



CM 6

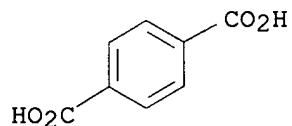
CRN 107-21-1  
CMF C2 H6 O2



CM 7

CRN 100-21-0

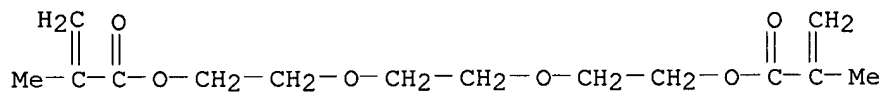
CMF C8 H6 O4



RN 452963-96-1 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and  
 2,2'-oxybis[ethanol], 2-methyl-2-propenoate, polymer with  
 1,2-ethanediylbis(oxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI)  
 (CA INDEX NAME)

CM 1

CRN 109-16-0  
 CMF C14 H22 O6

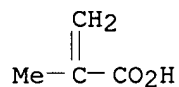


CM 2

CRN 452963-92-7  
 CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C4 H6 O2

CM 3

CRN 79-41-4  
 CMF C4 H6 O2

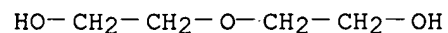


CM 4

CRN 25052-77-1  
 CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x  
 CCI PMS

CM 5

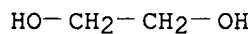
CRN 111-46-6  
 CMF C4 H10 O3



CM 6

CRN 107-21-1

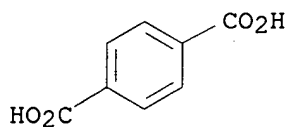
CMF C2 H6 O2



CM 7

CRN 100-21-0

CMF C8 H6 O4



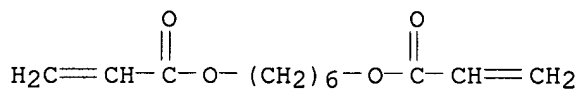
RN 452963-97-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and 2,2'-oxybis[ethanol], 2-methyl-2-propenoate, polymer with 1,6-hexanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 13048-33-4

CMF C12 H18 O4



CM 2

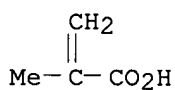
CRN 452963-92-7

CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C4 H6 O2

CM 3

CRN 79-41-4

CMF C4 H6 O2



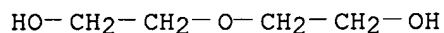


CM 4

CRN 25052-77-1  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x  
CCI PMS

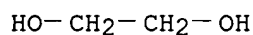
CM 5

CRN 111-46-6  
CMF C4 H10 O3



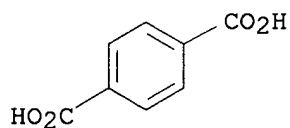
CM 6

CRN 107-21-1  
CMF C2 H6 O2



CM 7

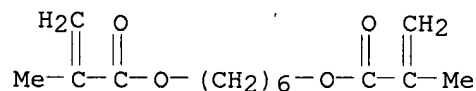
CRN 100-21-0  
CMF C8 H6 O4



RN 452963-98-3 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and  
2,2'-oxybis[ethanol], 2-methyl-2-propenoate, polymer with 1,6-hexanediyl  
bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 6606-59-3  
CMF C14 H22 O4



CM 2

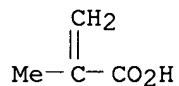
CRN 452963-92-7

CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C4 H6 O2

CM 3

CRN 79-41-4

CMF C4 H6 O2



CM 4

CRN 25052-77-1

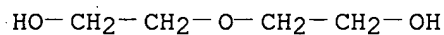
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x

CCI PMS

CM 5

CRN 111-46-6

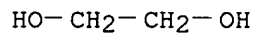
CMF C4 H10 O3



CM 6

CRN 107-21-1

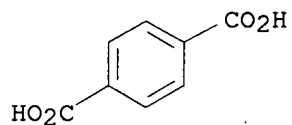
CMF C2 H6 O2



CM 7

CRN 100-21-0

CMF C8 H6 O4



L48 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:349314 HCAPLUS

DN 136:378886

TI Heat-resistant polyester films for thin magnetic recording media

IN Tojo, Mitumine

PA Teijin Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G11B005-73  
 ICS C08J007-04; C08L067-02  
 CC 77-8 (Magnetic Phenomena)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002133643	A2	20020510	JP 2000-332179	20001031
PRAI	JP 2000-332179		20001031		
AB	The polyester film, useful for digital video tapes, has at least on one side a layer with a surface microstructure comprising concave and convex lines with width 0.1-3 .mu.m, wherein the layer with surface roughness Ra (measured by AFM) 3-20 nm contains inert microparticles with av. diam. 10-200 nm. The layer may be deposited on a back side of a magnetic tape. Thermal distortion in vapor deposition of magnetic layers is prevented with the films.				
ST	polyester film magnetic recording uneven backside; heat resistance polyester digital video tape				
IT	Polyesters, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (acrylic, binder; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)				
IT	Polyoxyalkylenes, uses RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (alkyl group-terminated, surfactant; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)				
IT	Polyesters, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (base film; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)				
IT	Magnetic tapes Plastic films (heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)				
IT	Acrylic polymers, uses RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (microparticles, surface layer contg.; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)				
IT	24968-11-4P, Dimethyl 2,6-naphthalate-ethylene glycol copolymer, SRU 25038-59-9P, Dimethyl terephthalate-ethylene glycol copolymer, uses 25853-85-4P, Dimethyl 2,6-naphthalenedicarboxylate-ethylene glycol copolymer RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (base film; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)				
IT	9002-89-5, Polyvinyl alcohol 9004-65-3, Hydroxypropylmethyl cellulose				

87139-72-8, Diethylene glycol-ethylene glycol-isophthalic acid-5-sodiosulfoisophthalic acid-terephthalic acid copolymer  
**422324-41-2**, Diethylene glycol-ethylene glycol-glycidyl methacrylate-isophthalic acid-methyl methacrylate-5-sodiosulfoisophthalic acid-terephthalic acid copolymer

RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)

(**binder**; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)

IT 7631-86-9, Silica, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(surface layer contg.; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)

IT 9016-45-9, Polyethylene glycol nonylphenyl ether

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(surfactant; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)

IT **422324-41-2**, Diethylene glycol-ethylene glycol-glycidyl methacrylate-isophthalic acid-methyl methacrylate-5-sodiosulfoisophthalic acid-terephthalic acid copolymer

RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)

(**binder**; heat-resistant polyester films for thin digital magnetic tapes having back layers with uneven network structures)

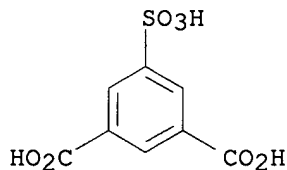
RN 422324-41-2 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, 1,2-ethanediol, methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 6362-79-4

CMF C8 H6 O7 S . Na

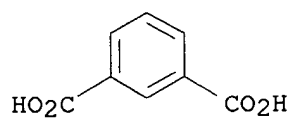


● Na

CM 2

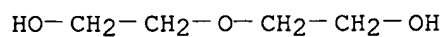
CRN 121-91-5

CMF C8 H6 O4



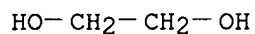
CM 3

CRN 111-46-6  
CMF C4 H10 O3



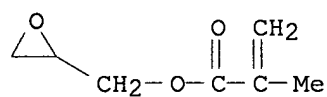
CM 4

CRN 107-21-1  
CMF C2 H6 O2



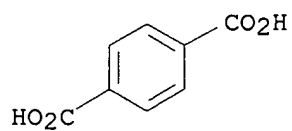
CM 5

CRN 106-91-2  
CMF C7 H10 O3



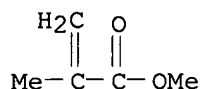
CM 6

CRN 100-21-0  
CMF C8 H6 O4



CM 7

CRN 80-62-6  
CMF C5 H8 O2



L48 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:349313 HCAPLUS

DN 136:378885

TI Blocking- and scratch-resistant flat polyester films for magnetic recording media

IN Tojo, Mitsumine

PA Teijin Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G11B005-73

ICS B32B027-36

CC 77-8 (Magnetic Phenomena)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002133642	A2	20020510	JP 2000-330285	20001030
PRAI	JP 2000-330285		20001030		
AB	The polyester film with surface roughness (measured by AFM) Ra 0.1-3 nm (<3) and Rz 5-40 nm has at least on one side a layer comprising (A) binder resins, (B) inert microparticles, (C) surfactants, and (D) 1-40% styrene polymers contg. sulfonate groups. The films are particularly useful for digital video tapes.				
ST	polyester film magnetic recording medium antiblocking; scratch resistance polyester digital video tape; styrene polymer flat polyester magnetic tape				
IT	Polyesters, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (acrylic, binder; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)				
IT	Polyoxyalkylenes, uses RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (alkyl group-terminated, surfactant; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)				
IT	Polyesters, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (base film; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)				
IT	Magnetic tapes Plastic films (blocking- and scratch-resistant flat polyester films for digital magnetic tapes)				
IT	Acrylic polymers, uses RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (microparticles, surface layer contg.; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)				

IT 24968-11-4P 25038-59-9P, Dimethyl terephthalate-ethylene glycol copolymer, uses 25853-85-4P, Dimethyl 2,6-naphthalenedicarboxylate-ethylene glycol copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (base film; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)

IT 87139-72-8, Diethylene glycol-ethylene glycol-isophthalic acid-5-sodiosulfoisophthalic acid-terephthalic acid copolymer  
**422324-41-2**, Diethylene glycol-ethylene glycol-glycidyl methacrylate-isophthalic acid-methyl methacrylate-5-sodiosulfoisophthalic acid-terephthalic acid copolymer  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)  
 (**binder**; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)

IT 7631-86-9, Silica, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (surface layer contg.; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)

IT 63767-37-3D, Ammonium styrenesulfonate, polymers 86468-69-1  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (surface layer contg.; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)

IT 9016-45-9, Polyethylene glycol nonylphenyl ether  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (surfactant; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)

IT **422324-41-2**, Diethylene glycol-ethylene glycol-glycidyl methacrylate-isophthalic acid-methyl methacrylate-5-sodiosulfoisophthalic acid-terephthalic acid copolymer  
 RL: **POF (Polymer in formulation)**; TEM (Technical or engineered material use); USES (Uses)  
 (**binder**; blocking- and scratch-resistant flat polyester films for digital magnetic tapes)

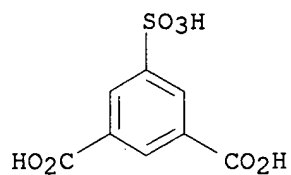
RN 422324-41-2 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, 1,2-ethanediol, methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 6362-79-4

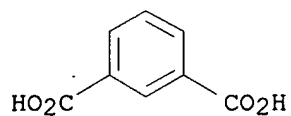
CMF C8 H6 O7 S . Na



● Na

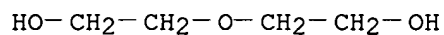
CM 2

CRN 121-91-5  
CMF C8 H6 O4



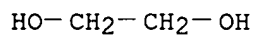
CM 3

CRN 111-46-6  
CMF C4 H10 O3



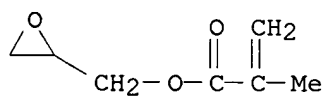
CM 4

CRN 107-21-1  
CMF C2 H6 O2



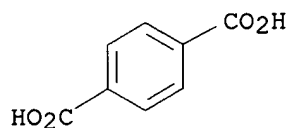
CM 5

CRN 106-91-2  
CMF C7 H10 O3

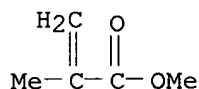




CM 6

CRN 100-21-0  
CMF C8 H6 O4

CM 7

CRN 80-62-6  
CMF C5 H8 O2

L48 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:104690 HCAPLUS

DN 136:135581

TI Low-odor (meth)acrylic ester binders with low viscosity and good storage stability prepared starting from aromatic polyesters

IN Dally, Moya; De Cooman, Ria; Meyer, Werner

PA Sika A.-G., Vorm. Kaspar Winkler &amp; Co., Switz.

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C09D167-07

ICS C09J167-07; C08L067-07; C08G063-21; C08J011-22

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 42, 58, 60

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1178092	A1	20020206	EP 2000-116565	20000801
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002042486	A1	20020411	US 2001-917674	20010731
	JP 2002138124	A2	20020514	JP 2001-234072	20010801
PRAI	EP 2000-116565	A	20000801		
AB	Title (meth)acrylate binders, particularly useful in adhesives, coatings and floorings, comprises an oligomer A(R1)nXR2O[OR3COR4]mA or AOR2X(R1)n[OR3COR4]mA (A = CH2:C(R5)CO-; R1 = arom. polyester; R2 = substituted linear and branched C3-20 alkylene, cycloalkylene and aralkylene, substituted dioxyalkylene, trioxyalkylene or tetraoxyalkylene and substituted heterocyclic radicals; R3 = hydroxy- or carboxylic-substituted linear and branched aliph. and arom. and araliph. divalent C3-14 radical; R4 = -OR2X(R1)n- or -(R1)nXR2O- or -XR2O-; R5 = H,				

*applicants*

Me; X = O, NH; n = 1-4; and m = 0-3). Thus, 475 parts PET flakes (from recycled beverage bottles), was mixed with ethoxylated neopentyl glycol 520, and tert-Bu titanate 5 parts for 2 h at 240.degree., then reacted with 460 parts methacrylic acid contg. 0.2 parts phenothiazine and 15 parts p-toluenesulfonic acid in 365 parts toluene at .apprx. 130.degree. for .apprx. 4 h and cured at room temp. with 2% benzoyl peroxide and 0.5% dimethylaniline, showing tensile strength >35 MPa, elongation at break 9%, good scratch resistance and compressive strength, and weather and chem. resistance.

ST acrylic ester binder low odor coating; adhesive arom polyester polyacrylate binder; PET recycled acrylic polyoxyalkylene binder flooring; arom polyester methacrylic acid reaction polyacrylate prepn

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyester-; low-odor (meth)acrylic ester binders with low viscosity and good storage stability prepd. starting from recycled polyethylene terephthalate)

IT Polyesters, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyoxyalkylene-; low-odor (meth)acrylic ester binders with low viscosity and good storage stability prepd. starting from recycled polyethylene terephthalate)

IT Polyesters, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic; low-odor (meth)acrylic ester binders with low viscosity and good storage stability prepd. starting from recycled polyethylene terephthalate)

IT Binders

Coating materials

Recycling of plastics and rubbers

(low-odor (meth)acrylic ester binders with low viscosity and good storage stability prepd. starting from recycled polyethylene terephthalate)

IT Adhesives

Mortar

(low-odor (meth)acrylic ester binders with low viscosity and good storage stability prepd. starting from recycled polyethylene terephthalate for)

IT **393582-81-5P**, Ethylene glycol-ethoxylated neopentyl

glycol-terephthlic acid copolymer dimethacrylate homopolymer

**393582-83-7P**, Ethylene glycol-ethoxylated neopentyl

glycol-terephthlic acid copolymer methacrylate n-nonyl ester, homopolymer

**393582-85-9P**, Diethylene glycol-ethylene glycol-phthalic

anhydride-terephthlic acid copolymer diacrylate homopolymer

**393582-87-1P**, Diethylene glycol-ethylene glycol-phthalic

anhydride-terephthlic acid copolymer dimethacrylate homopolymer

**393582-89-3P**, Diethylene glycol-ethylene glycol-terephthlic

acid-trimellitic anhydride copolymer methacrylate homopolymer

RL: IMF (Industrial manufacture); POF (Polymer in

formulation); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(low-odor (meth)acrylic ester binders with low viscosity and good storage stability prepd. starting from recycled polyethylene terephthalate)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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 (2) Ostermann & Scheiwe Gmbh & Co; EP 1002842 A 2000 HCAPLUS  
 (3) Sherwin Williams Co; EP 0558905 A 1993 HCAPLUS

IT 393582-81-5P, Ethylene glycol-ethoxylated neopentyl glycol-terephthlic acid copolymer dimethacrylate homopolymer  
 393582-83-7P, Ethylene glycol-ethoxylated neopentyl glycol-terephthlic acid copolymer methacrylate n-nonyl ester, homopolymer  
 393582-85-9P, Diethylene glycol-ethylene glycol-phthalic anhydride-terephthlic acid copolymer diacrylate homopolymer  
 393582-87-1P, Diethylene glycol-ethylene glycol-phthalic anhydride-terephthlic acid copolymer dimethacrylate homopolymer  
 393582-89-3P, Diethylene glycol-ethylene glycol-terephthlic acid-trimellitic anhydride copolymer methacrylate homopolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(low-odor (meth)acrylic ester binders with low viscosity and good storage stability prepd. starting from recycled polyethylene terephthalate)

RN 393582-81-5 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with .alpha.,.alpha.'-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] and 1,2-ethanediol, bis(2-methyl-2-propenoate), homopolymer (9CI) (CA INDEX NAME)

CM 1

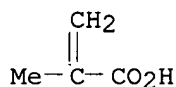
CRN 393582-80-4

CMF (C8 H6 O4 . C2 H6 O2 . (C2 H4 O)n (C2 H4 O)n C5 H12 O2)x . 2 C4 H6 O2

CM 2

CRN 79-41-4

CMF C4 H6 O2



CM 3

CRN 393582-79-1

CMF (C8 H6 O4 . C2 H6 O2 . (C2 H4 O)n (C2 H4 O)n C5 H12 O2)x

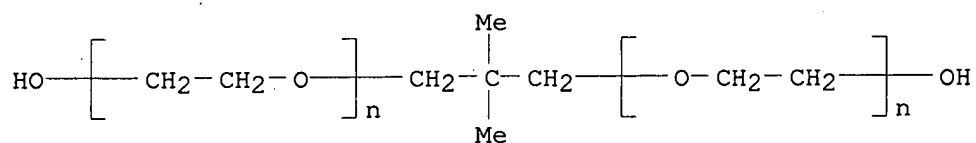
CCI PMS

CM 4

CRN 82973-76-0

CMF (C2 H4 O)n (C2 H4 O)n C5 H12 O2

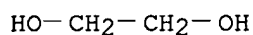
CCI PMS



CM 5

CRN 107-21-1

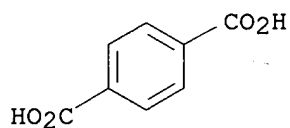
CMF C2 H6 O2



CM 6

CRN 100-21-0

CMF C8 H6 O4



RN 393582-83-7 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with .alpha.,.alpha.'-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] and 1,2-ethanediol, mono(2-methyl-2-propenoate), nonyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

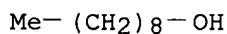
CRN 393582-82-6

CMF C9 H20 O . (C8 H6 O4 . C2 H6 O2 . (C2 H4 O)n (C2 H4 O)n C5 H12 O2)x . C4 H6 O2

CM 2

CRN 143-08-8

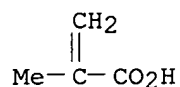
CMF C9 H20 O



CM 3

CRN 79-41-4

CMF C4 H6 O2



CM 4

CRN 393582-79-1

CMF (C8 H6 O4 . C2 H6 O2 . (C2 H4 O)n (C2 H4 O)n C5 H12 O2)x

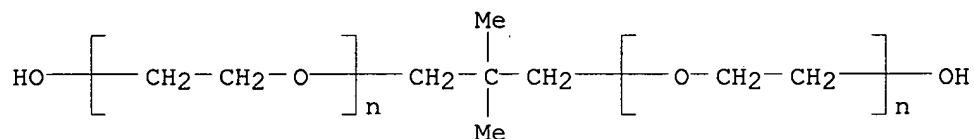
CCI PMS

CM 5

CRN 82973-76-0

CMF (C2 H4 O)n (C2 H4 O)n C5 H12 O2

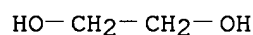
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CM 6

CRN 107-21-1

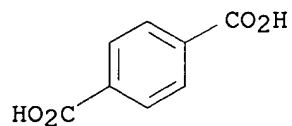
CMF C2 H6 O2



CM 7

CRN 100-21-0

CMF C8 H6 O4



RN 393582-85-9 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol,  
1,3-isobenzofurandione and 2,2'-oxybis[ethanol], di-2-propenoate,  
homopolymer (9CI) (CA INDEX NAME)

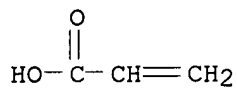
CM 1

CRN 393582-84-8

CMF (C8 H6 O4 . C8 H4 O3 . C4 H10 O3 . C2 H6 O2)x . 2 C3 H4 O2

CM 2

CRN 79-10-7  
CMF C3 H4 O2

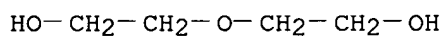


CM 3

CRN 96664-01-6  
CMF (C8 H6 O4 . C8 H4 O3 . C4 H10 O3 . C2 H6 O2)x  
CCI PMS

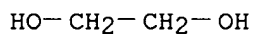
CM 4

CRN 111-46-6  
CMF C4 H10 O3



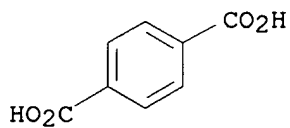
CM 5

CRN 107-21-1  
CMF C2 H6 O2



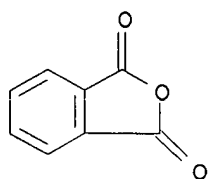
CM 6

CRN 100-21-0  
CMF C8 H6 O4



CM 7

CRN 85-44-9  
CMF C8 H4 O3



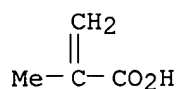
RN 393582-87-1 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol,  
 1,3-isobenzofurandione and 2,2'-oxybis[ethanol], bis(2-methyl-2-  
 propenoate), homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 393582-86-0  
 CMF (C8 H6 O4 . C8 H4 O3 . C4 H10 O3 . C2 H6 O2)x . 2 C4 H6 O2

CM 2

CRN 79-41-4  
 CMF C4 H6 O2

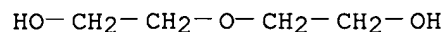


CM 3

CRN 96664-01-6  
 CMF (C8 H6 O4 . C8 H4 O3 . C4 H10 O3 . C2 H6 O2)x  
 CCI PMS

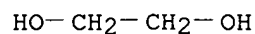
CM 4

CRN 111-46-6  
 CMF C4 H10 O3



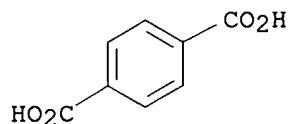
CM 5

CRN 107-21-1  
 CMF C2 H6 O2



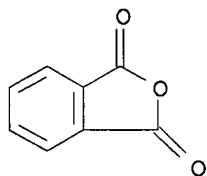
CM 6

CRN 100-21-0  
CMF C8 H6 O4



CM 7

CRN 85-44-9  
CMF C8 H4 O3



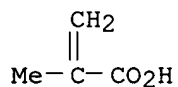
RN 393582-89-3 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 1,2-ethanediol and 1,3-isobenzofurandione, 2-methyl-2-propenoate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 393582-88-2  
CMF (C9 H4 O5 . C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C4 H6 O2

CM 2

CRN 79-41-4  
CMF C4 H6 O2



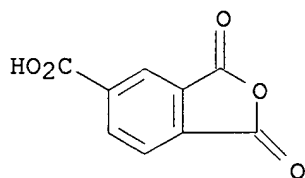
CM 3

CRN 135187-98-3  
CMF (C9 H4 O5 . C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x  
CCI PMS

CM 4

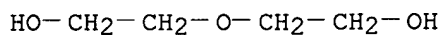
CRN 552-30-7  
CMF C9 H4 O5





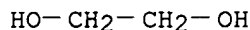
CM 5

CRN 111-46-6  
CMF C4 H10 O3



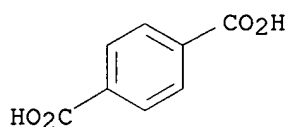
CM 6

CRN 107-21-1  
CMF C2 H6 O2



CM 7

CRN 100-21-0  
CMF C8 H6 O4



L48 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
AN 2001:916762 HCAPLUS  
DN 136:217421  
TI On the UV curability and mechanical properties of novel binder systems  
derived from poly(ethylene terephthalate) (PET) waste for solventless  
magnetic tape manufacturing, 1 Acrylated oligoesters  
AU Farahat, Medhat S.; Nikles, David E.  
CS Center for Materials for Information Technology, University of Alabama,  
Tuscaloosa, AL, 35487-0209, USA  
SO Macromolecular Materials and Engineering (2001), 286(11), 695-704  
CODEN: MMENFA; ISSN: 1438-7492  
PB Wiley-VCH Verlag GmbH  
DT Journal  
LA English

- CC 37-3 (Plastics Manufacture and Processing)  
Section cross-reference(s): 77
- AB PET waste obtained from beverage bottles was depolymerized by a glycolysis reaction, using diethylene glycol (DEG) as the glycolyzing system and manganese acetate as a transesterification catalyst. The glycolysis reaction was conducted at two different molar ratios of PET:DEG, namely 1:2.15 and 1:1.03, for the sake of obtaining oligoester polyols of varying mol. wts. The hydroxyl values of the obtained oligoesters were 361 and 330 mg KOH/g. Modification of these oligoester polyols was carried out by acrylation reactions of the available hydroxyl groups by acryloyl chloride. This gave acrylated oligoesters curable under UV or electron beam irradiation. The curability of these newly synthesized acrylated oligoesters was tested by UV irradiation, in the presence of 2-benzyl-2-dimethylamino-1-(4-morpholinophenyl)-1-butanone (BDMB) as a photo initiator. This gave cured films of high mech. properties when the acrylated oligoesters were either cured alone or as mixtures with other com. available diacrylate/dimethacrylate monomers. The measured tensile properties were in the range of 4.62-45 MPa for max. tensile strength and 0.074-2.0 GPa for Young's modulus.
- ST polyethylene terephthalate waste polyol acrylate binder; diethylene glycol reaction product PET acrylate binder; magnetic tape binder PET polyol acrylate
- IT Crosslinking catalysts  
Glycolysis  
Magnetic tapes  
Polymerization catalysts  
Tensile strength  
Waste plastics and rubbers  
Young's modulus  
(UV curability and mech. properties of oligoester acrylates from poly(ethylene terephthalate) wastes for binders for solventless magnetic tape manufg.)
- IT Bottles  
(polyester; UV curability and mech. properties of oligoester acrylates from poly(ethylene terephthalate) wastes for binders for solventless magnetic tape manufg.)
- IT Polyesters, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(reaction products with diethylene glycol, acrylates, homopolymers and copolymers; UV curability and mech. properties of oligoester acrylates from poly(ethylene terephthalate) wastes for binders for solventless magnetic tape manufg.)
- IT 119313-12-1, 2-Benzyl-2-dimethylamino-1-(4-morpholinophenyl)-1-butanone  
RL: CAT (Catalyst use); USES (Uses)  
(UV curability and mech. properties of oligoester acrylates from poly(ethylene terephthalate) wastes for binders for solventless magnetic tape manufg.)
- IT 109-16-0DP, Triethylene glycol dimethacrylate, polymers with poly(ethylene terephthalate)-diethylene glycol reaction product acrylates 111-46-6DP, Diethylene glycol, reaction products with poly(ethylene terephthalate), acrylates, homopolymers and copolymers 814-68-6DP, Acryloyl chloride, esters with poly(ethylene terephthalate)-diethylene glycol reaction products, homopolymers and copolymers 2358-84-1DP, Diethylene glycol dimethacrylate, polymers with poly(ethylene terephthalate)-diethylene glycol reaction product acrylates 4074-88-8DP, Diethylene glycol diacrylate, polymers with poly(ethylene terephthalate)-diethylene glycol reaction product acrylates 13048-33-4DP, polymers with poly(ethylene terephthalate)-diethylene glycol reaction product acrylates

**25038-59-9DP**, Poly(ethylene terephthalate), reaction products with diethylene glycol, **acrylates**, homopolymers and copolymers  
58264-26-9DP, Hexanediol dimethacrylate, polymers with poly(ethylene terephthalate)-diethylene glycol reaction product acrylates

RL: PRP (Properties); **SPN (Synthetic preparation)**; **PREP**

**(Preparation)**

(UV curability and mech. properties of **oligoester acrylates** from poly(ethylene terephthalate) wastes for **binders** for solventless magnetic tape manufg.)

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

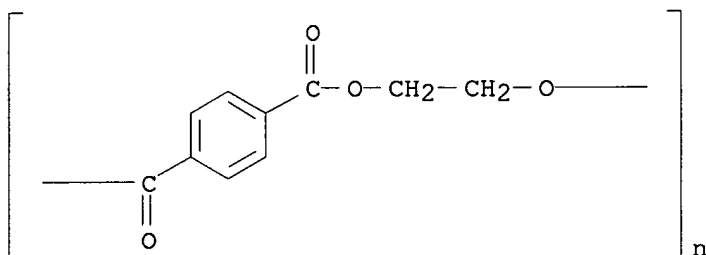
- (1) ASTM; Standard Test Methods for Tensile Properties of Thin Plastic Sheeting D 882-91
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- IT **25038-59-9DP**, Poly(ethylene terephthalate), reaction products with diethylene glycol, **acrylates**, homopolymers and copolymers  
RL: PRP (Properties); **SPN (Synthetic preparation)**; **PREP**

**(Preparation)**

(UV curability and mech. properties of **oligoester acrylates** from poly(ethylene terephthalate) wastes for **binders** for solventless magnetic tape manufg.)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



L48 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:662307 HCAPLUS

DN 135:345389

TI Novel binder systems derived from poly(ethylene terephthalate) PET waste for solventless magnetic tape manufacturing. II. Investigation on the mechanical properties of the methacrylated oligoesters

AU Farahat, Medhat S.; Nikles, David E.

CS Center for Materials for Information Technology, University of Alabama, Tuscaloosa, AL, 35487-0209, USA

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2001), 42(2), 558-559  
CODEN: ACPPAY; ISSN: 0032-3934

PB American Chemical Society, Division of Polymer Chemistry

DT Journal; (computer optical disk)

LA English

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 77

AB The investigation on synthesizing new UV curable acrylated oligoesters, initially derived from PET waste, for the solventless magnetic tape manufg., was successfully established. Methacrylated oligoesters obtained by glycolyzing PET with diethylene glycol (DEG) at the molar ratio of PET:DEG (1:1.03) showed better mech. properties than those results obtained by glycolyzing PET at the molar ratio of PET:DEG (1:2.15). The idea of the current investigation is a novel one and it opens the door for many new applications for the oligoesters derived from PET waste.

ST methacrylated polyethylene terephthalate oligomer waste mech property; solventless magnetic tape methacrylated PET waste

IT Strain

(at break; mech. properties of methacrylated oligoesters from PET wastes as binder systems for solventless magnetic tape manufg.)

IT Polyesters, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(glycolyzed, reaction products with methacryloyl chloride and other (meth)acrylates; mech. properties of methacrylated oligoesters from PET wastes as binder systems for solventless magnetic tape manufg.)

IT Binders

Magnetic tapes

Solid wastes

Tensile strength

Young's modulus

(mech. properties of methacrylated oligoesters from PET wastes as binder systems for solventless magnetic tape manufg.)

IT Crosslinking

(photochem.; mech. properties of methacrylated oligoesters from PET wastes as binder systems for solventless magnetic tape manufg.)

IT 109-16-0DP, Triethylene glycol dimethacrylate, reaction products with glycolyzed PET chloride and other (meth)acrylates 111-46-6DP, Diethylene glycol, reaction products with poly(ethylene terephthalate) and methacryloyl chloride and other (meth)acrylates 920-46-7DP, Methacryloyl chloride, reaction products with glycolyzed poly(ethylene terephthalate) and other (meth)acrylates 2358-84-1DP, Diethylene glycol dimethacrylate, reaction products with glycolyzed PET chloride and other (meth)acrylates 13048-33-4DP, reaction products with glycolyzed PET chloride and other (meth)acrylates **25038-59-9DP**, Poly(ethylene terephthalate), glycolyzed, reaction products with **methacryloyl** chloride and other (meth)**acrylates** 58264-26-9DP, Hexanediol dimethacrylate, reaction products with glycolyzed PET chloride and other (meth)acrylates

RL: IMF (Industrial manufacture); PRP (Properties); TEM

(Technical or engineered material use); PREP (Preparation); USES

(Uses)

(mech. properties of **methacrylated oligoesters** from PET wastes as **binder** systems for solventless magnetic tape manufg.)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(5) Malucelli, G; Polymer 1996, V37(12), P2565 HCAPLUS

(6) Rader, C; ACS symposium series 1995, V609, P152

(7) Sorenson, W; Preparative Method of Polymer Chemistry 1968, P155

IT **25038-59-9DP**, Poly(ethylene terephthalate), glycolyzed, reaction products with **methacryloyl** chloride and other (meth)**acrylates**

RL: IMF (Industrial manufacture); PRP (Properties); TEM

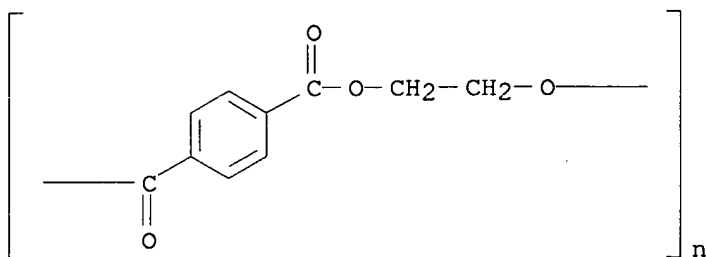
(Technical or engineered material use); PREP (Preparation); USES

(Uses)

(mech. properties of **methacrylated oligoesters** from PET wastes as **binder** systems for solventless magnetic tape manufg.)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



- L48 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:509864 HCAPLUS  
 DN 136:184443  
 TI Novel binder systems derived from poly(ethylene terephthalate) PET waste for solventless magnetic tape manufacturing. I. Investigation of the mechanical properties of the acrylated oligomers  
 AU Farahat, Medhat S.; Nikles, David E.  
 CS Center for Materials for Information Technology, University of Alabama, Tuscaloosa, AL, 35487-0209, USA  
 SO International SAMPE Symposium and Exhibition (2001), 46(2001: A Materials and Processes Odyssey, Book 1), 172-178  
 CODEN: ISSEEG; ISSN: 0891-0138  
 PB Society for the Advancement of Material and Process Engineering  
 DT Journal  
 LA English  
 CC 37-3 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 77  
 AB PET waste obtained from beverage bottles was first depolymerized by glycolysis reaction using diethylene glycol (DEG) as glycolyzing system and manganese acetate as a transesterification catalyst. The glycolysis reaction was conducted at two different molar ratios of PET:DEG (1:2.15 and 1:1.03) to obtain oligoester polyols of varying mol. wts. The obtained oligoester polyols were purified and characterized for hydroxyl values (mg KOH/g). Modification of the obtained oligoester polyols was carried out by acrylation or methacrylation of the available hydroxyl groups by acryloyl chloride or methacryloyl chloride. The curability of these newly synthesized acrylated/methacrylated oligoesters was tested by UV irradiation in the presence of 2-benzyl-2-dimethylamino-1-(4-morpholinophenyl)-1-butanone (BDMB) as a photoinitiator. The films of these cured polymers showed tensile strength in the range of 4.62 - 45 MPa and Young's modulus in the range of 0.074 - 2.0 GPa.  
 ST polyethylene terephthalate bottle waste glycolysis recycling; acrylate methacrylate oligoester polyol UV radical polymer; recycled polyester mechanical property  
 IT Polyesters, properties  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
 (PET bottle waste recycling by glycolysis and prep. of oligoesters from)  
 IT Recycling of plastics and rubbers  
 (PET bottle waste recycling for prep. of acrylic and methacrylic PET polymers)  
 IT Glycolysis  
 (acrylic and methacrylic PET polymers prep. from PET bottle waste)

- recycling by)
- IT Polyesters, preparation  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(acrylic; PET bottle waste recycling by glycolysis and prepn. of  
oligoesters for synthesis of acrylic and methacrylic PET polymers)
- IT Bottles  
(beverage; PET bottle waste recycling for prepn. of acrylic and  
methacrylic PET polymers)
- IT Elongation, mechanical  
Tensile strength  
Young's modulus  
(of acrylic and methacrylic PET polymers prepd. from PET bottle waste  
recycling by glycolysis)
- IT Polymerization  
(photochem., radical; PET bottle waste recycling for prepn. of acrylic  
and methacrylic polymers by)
- IT 111-46-6, Diethylene glycol, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(PET bottle waste recycling by glycolysis and prepn. of oligoesters by  
transesterification in the presence of)
- IT 400615-97-6P 400615-98-7P 400615-99-8P  
400616-00-4P 400616-01-5P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP  
(Preparation)  
(PET bottle waste recycling by glycolysis and prepn. of  
oligoesters for synthesis of acrylic and methacrylic PET  
polymers)
- IT 400615-96-5P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP  
(Preparation)  
(PET bottle waste recycling by glycolysis and prepn. of  
oligoesters for synthesis of acrylic and methacrylic PET-based  
polymers)
- IT 25038-59-9, Poly(ethylene terephthalate), properties  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant  
or reagent)  
(PET bottle waste recycling by glycolysis and prepn. of oligoesters  
from)

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

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- (5) Chen, J; J Appl Polym Sci 1999, V73, P35 HCAPLUS
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- (17) Lee, S; J Appl Polym Sci 1994, V52, P869 HCAPLUS

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- (19) Malucelli, G; J Appl Polym Sci 1996, V65, P491
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- (22) Odian, G; Principles of Polymerization 1981, P40
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- (29) Stetzler, R; Anal Chem 1962, V34(2), P194
- (30) Tong, S; Polymer 1983, V24, P469 HCAPLUS

IT 400615-97-6P 400615-98-7P 400615-99-8P

400616-00-4P 400616-01-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(PET bottle waste recycling by glycolysis and prepn. of oligoesters for synthesis of acrylic and methacrylic PET polymers)

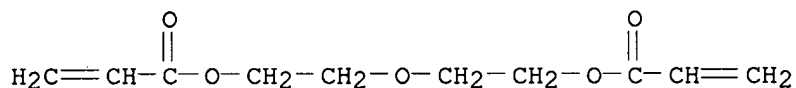
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CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and 2,2'-oxybis[ethanol], 2-propenoate, polymer with oxydi-2,1-ethanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 4074-88-8

CMF C10 H14 O5



CM 2

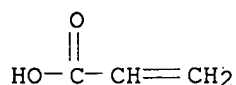
CRN 400615-95-4

CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C3 H4 O2

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

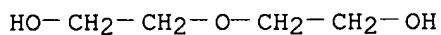
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CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x  
CCI PMS

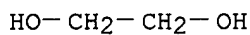
CM 5

CRN 111-46-6  
CMF C4 H10 O3



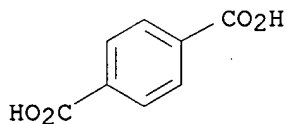
CM 6

CRN 107-21-1  
CMF C2 H6 O2



CM 7

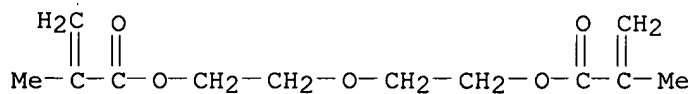
CRN 100-21-0  
CMF C8 H6 O4



RN 400615-98-7 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and 2,2'-oxybis[ethanol], 2-propenoate, polymer with oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 2358-84-1  
CMF C12 H18 O5

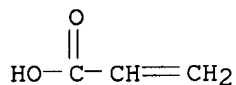


CM 2

CRN 400615-95-4  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C3 H4 O2

CM 3

CRN 79-10-7  
CMF C3 H4 O2

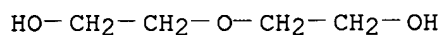


CM 4

CRN 25052-77-1  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2) x  
CCI PMS

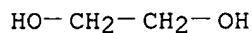
CM 5

CRN 111-46-6  
CMF C4 H10 O3



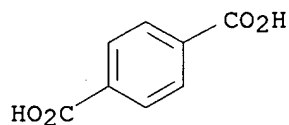
CM 6

CRN 107-21-1  
CMF C2 H6 O2



CM 7

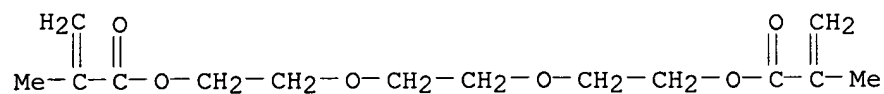
CRN 100-21-0  
CMF C8 H6 O4



RN 400615-99-8 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and 2,2'-oxybis[ethanol], 2-propenoate, polymer with 1,2-ethanediylbis(oxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 109-16-0  
CMF C14 H22 O6



CM 2

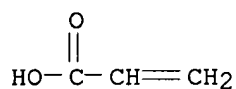
CRN 400615-95-4

CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C3 H4 O2

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

CRN 25052-77-1

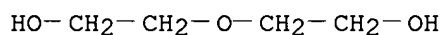
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x

CCI PMS

CM 5

CRN 111-46-6

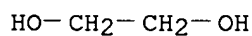
CMF C4 H10 O3



CM 6

CRN 107-21-1

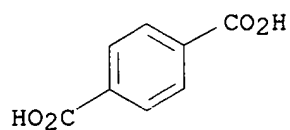
CMF C2 H6 O2



CM 7

CRN 100-21-0

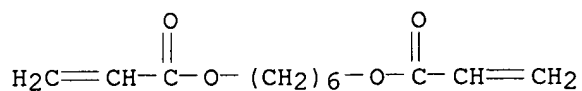
CMF C8 H6 O4



RN 400616-00-4 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and  
 2,2'-oxybis[ethanol], 2-propenoate, polymer with 1,6-hexanediyl  
 di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 13048-33-4  
 CMF C12 H18 O4

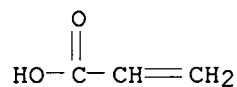


CM 2

CRN 400615-95-4  
 CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C3 H4 O2

CM 3

CRN 79-10-7  
 CMF C3 H4 O2

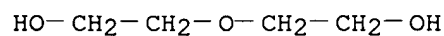


CM 4

CRN 25052-77-1  
 CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x  
 CCI PMS

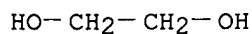
CM 5

CRN 111-46-6  
 CMF C4 H10 O3



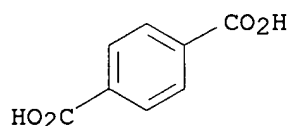
CM 6

CRN 107-21-1  
CMF C2 H6 O2



CM 7

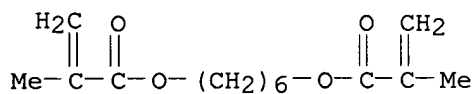
CRN 100-21-0  
CMF C8 H6 O4



RN 400616-01-5 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and 2,2'-oxybis[ethanol], 2-propenoate, polymer with 1,6-hexanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 6606-59-3  
CMF C14 H22 O4

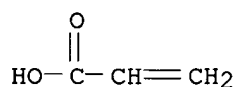


CM 2

CRN 400615-95-4  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C3 H4 O2

CM 3

CRN 79-10-7  
CMF C3 H4 O2



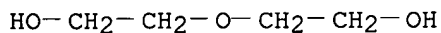
CM 4

CRN 25052-77-1

CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x  
CCI PMS

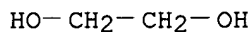
CM 5

CRN 111-46-6  
CMF C4 H10 O3



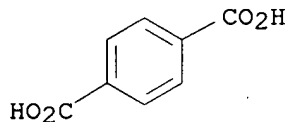
CM 6

CRN 107-21-1  
CMF C2 H6 O2



CM 7

CRN 100-21-0  
CMF C8 H6 O4



IT 400615-96-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP  
(Preparation)

(PET bottle waste recycling by glycolysis and prepn. of  
oligoesters for synthesis of acrylic and methacrylic PET-based  
polymers)

RN 400615-96-5 HCAPLUS

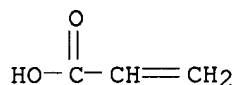
CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol and  
2,2'-oxybis[ethanol], 2-propenoate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 400615-95-4  
CMF (C8 H6 O4 . C4 H10 O3 . C2 H6 O2)x . x C3 H4 O2

CM 2

CRN 79-10-7  
CMF C3 H4 O2

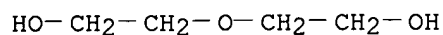


CM 3

CRN 25052-77-1  
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 CCI PMS

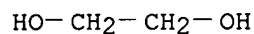
CM 4

CRN 111-46-6  
 CMF C4 H10 O3



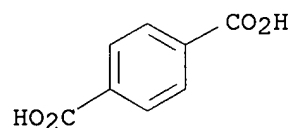
CM 5

CRN 107-21-1  
 CMF C2 H6 O2



CM 6

CRN 100-21-0  
 CMF C8 H6 O4



L48 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2000:362692 HCAPLUS  
 DN 133:11961  
 TI Magnetic recording media using polyesters with hydroxyl group in the  
 branches as binders for magnetic layers  
 IN Yatsuka, Takeshi; Doi, Kuniyuki  
 PA Toyobo Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G11B005-702

ICS C09D167-00  
 CC 77-8 (Magnetic Phenomena)  
 Section cross-reference(s): 38  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000149241	A2	20000530	JP 1998-320770	19981111
PRAI	JP 1998-320770		19981111		
AB	The magnetic recording media employs binders of modified polyesters prepd. by depolymn. of (a) polyesters with no.-av. mol. wt. (Mn) 4000-100,000 by using (b) compds. with Mn 300-5000 and bearing .gtoreq. 3 OH. The binders exhibit excellent dispersibility, filling property, abrasion resistance, and heat resistance.				
ST	polyester hydroxyl branch magnetic recording tape; depolymn polyester polyhydric compd magnetic tape				
IT	Polyesters, uses RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses) (acrylic; magnetic recording media using polyesters with hydroxyl group in the branches as binders for magnetic layers)				
IT	Polyesters, uses RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses) (depolymn.; magnetic recording media using polyesters with hydroxyl group in the branches as binders for magnetic layers)				
IT	Depolymerization (in polyester prepn.; magnetic recording media using polyesters with hydroxyl group in the branches as binders for magnetic layers)				
IT	Magnetic tapes (magnetic recording media using polyesters with hydroxyl group in the branches as binders for magnetic layers)				
IT	25618-55-7, Polyglycerin RL: RCT (Reactant); RACT (Reactant or reagent) (PGL 10, polyester depolymn. with; magnetic recording media using polyesters with hydroxyl group in the branches as binders for magnetic layers)				
IT	9005-65-6, Polyoxyethylene sorbitan monooleate 26916-03-0, Butyl acrylate-2-hydroxyethyl methacrylate-styrene copolymer RL: RCT (Reactant); RACT (Reactant or reagent) (polyester depolymn. with; magnetic recording media using polyesters with hydroxyl group in the branches as binders for magnetic layers)				
IT	270257-72-2P, Coronate HX-1,4-cyclohexanedimethanol-ethylene glycol-isophthalic acid-neopentyl glycol-PGL 10-5-sodiosulfoisophthalic acid-trimellitic anhydride copolymer 270257-73-3P, Coronate HX-ethylene glycol-neopentyl glycol monohydroxypivalate-PGL 10-5-sodiosulfoisophthalic acid-terephthalic acid copolymer 270257-74-4P, Coronate HX-ethylene glycol-isophthalic acid-neopentyl glycol-terephthalic acid-PGL 10 copolymer 270257-75-5P, Coronate HX-ethylene glycol-isophthalic acid-neopentyl glycol-PGL 10-5-sodiosulfoisophthalic acid-terephthalic acid copolymer <b>270257-76-6P</b> , Butyl acrylate-Coronate HX-ethylene glycol-2-hydroxyethyl methacrylate-isophthalic acid-neopentyl glycol-5-sodiosulfoisophthalic acid-styrene-terephthalic acid copolymer 270257-77-7P, Coronate HX-ethylene glycol-isophthalic acid-neopentyl glycol-polyoxyethylene sorbitan monooleate-5-sodiosulfoisophthalic acid-terephthalic acid copolymer 270257-78-8P, 1,4-Cyclohexanedimethanol-ethylene glycol-HDI trimer-isophthalic acid-neopentyl glycol-PGL 10-5-sodiosulfoisophthalic acid-trimellitic anhydride copolymer 270257-79-9P, Ethylene glycol-HDI trimer-neopentyl glycol				



monohydroxypivalate-PGL 10-5-sodiosulfoisophthalic acid-terephthalic acid copolymer 270257-80-2P, Ethylene glycol-HDI trimer-isophthalic acid-neopentyl glycol-terephthalic acid-PGL 10 copolymer 270257-81-3P, Ethylene glycol-HDI trimer-isophthalic acid-neopentyl glycol-PGL 10-5-sodiosulfoisophthalic acid-terephthalic acid copolymer 270257-82-4P, Butyl acrylate-ethylene glycol-HDI trimer-2-hydroxyethyl methacrylate-isophthalic acid-neopentyl glycol-5-sodiosulfoisophthalic acid-styrene-terephthalic acid copolymer 270257-83-5P, Ethylene glycol-HDI trimer-isophthalic acid-neopentyl glycol-polyoxyethylene sorbitan monooleate-5-sodiosulfoisophthalic acid-terephthalic acid copolymer

RL: DEV (Device component use); PNU (Preparation, unclassified); **PREP (Preparation)**; USES (Uses)

(prepd. by depolymn.; magnetic recording media using polyesters with hydroxyl group in the branches as **binders** for magnetic layers)

IT 270257-76-6P, Butyl acrylate-Coronate HX-ethylene glycol-2-hydroxyethyl methacrylate-isophthalic acid-neopentyl glycol-5-sodiosulfoisophthalic acid-styrene-terephthalic acid copolymer

270257-82-4P, Butyl acrylate-ethylene glycol-HDI trimer-2-hydroxyethyl methacrylate-isophthalic acid-neopentyl glycol-5-sodiosulfoisophthalic acid-styrene-terephthalic acid copolymer

RL: DEV (Device component use); PNU (Preparation, unclassified); **PREP (Preparation)**; USES (Uses)

(prepd. by depolymn.; magnetic recording media using polyesters with hydroxyl group in the branches as **binders** for magnetic layers)

RN 270257-76-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, butyl 2-propenoate, Coronate HX, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, ethenylbenzene and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 144245-98-7

CMF Unspecified

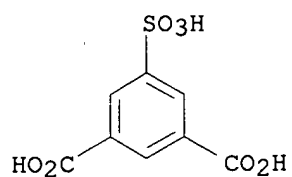
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 6362-79-4

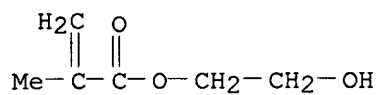
CMF C8 H6 O7 S . Na



● Na

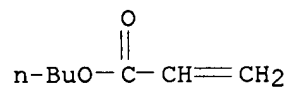
CM 3

CRN 868-77-9  
CMF C6 H10 O3



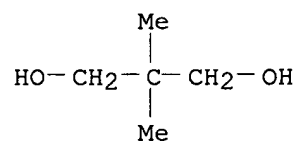
CM 4

CRN 141-32-2  
CMF C7 H12 O2



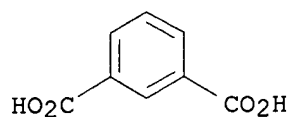
CM 5

CRN 126-30-7  
CMF C5 H12 O2



CM 6

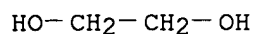
CRN 121-91-5  
CMF C8 H6 O4



CM 7

CRN 107-21-1

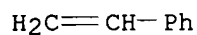
CMF C2 H6 O2



CM 8

CRN 100-42-5

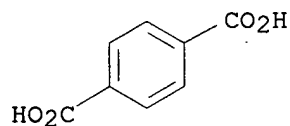
CMF C8 H8



CM 9

CRN 100-21-0

CMF C8 H6 O4



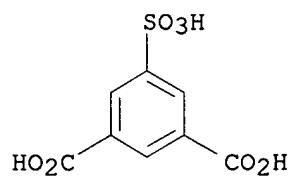
RN 270257-82-4 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, butyl 2-propenoate, 1,6-diisocyanatohexane trimer, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, ethenylbenzene and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 6362-79-4

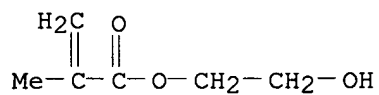
CMF C8 H6 O7 S . Na



● Na

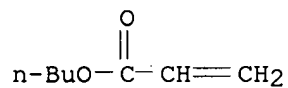
CM 2

CRN 868-77-9  
CMF C6 H10 O3



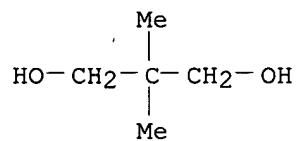
CM 3

CRN 141-32-2  
CMF C7 H12 O2



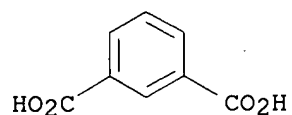
CM 4

CRN 126-30-7  
CMF C5 H12 O2



CM 5

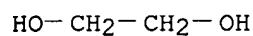
CRN 121-91-5  
CMF C8 H6 O4



CM 6

CRN 107-21-1

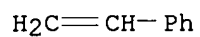
CMF C2 H6 O2



CM 7

CRN 100-42-5

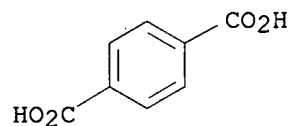
CMF C8 H8



CM 8

CRN 100-21-0

CMF C8 H6 O4



CM 9

CRN 28574-90-5

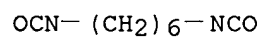
CMF (C8 H12 N2 O2) 3

CCI PMS

CM 10

CRN 822-06-0

CMF C8 H12 N2 O2



AN 1999:814008 HCAPLUS  
 DN 132:57093  
 TI Toner with good wax dispersibility  
 IN Matsunaga, Satoshi; Endo, Genichi; Michigami, Tadashi; Mizoo, Yuichi  
 PA Canon K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 21 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03G009-087  
 ICS G03G009-08  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

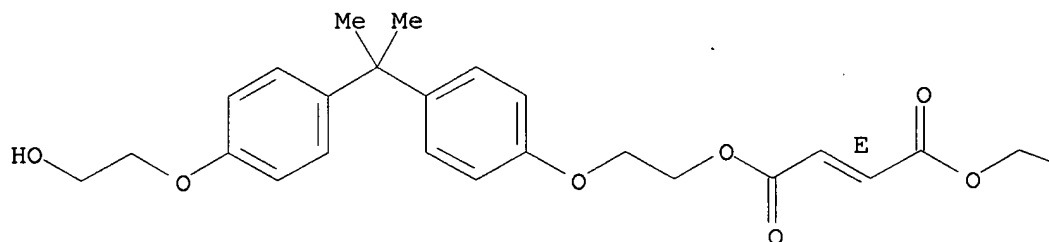
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11352720	A2	19991224	JP 1998-155094	19980604
PRAI	JP 1998-155094		19980604		
AB	The toner, useful for electrophotog., electrostatic recording, toner-jet recording, etc., contains a binder resin, a colorant, and a wax, wherein the binder resin is manufd. by polymn. of arom. vinyl monomer, (meth)acrylate ester, and CO2H-contg. vinyl monomer to give vinyl copolymer (A) and polymn. of polyester-forming acid and alc. in the presence of wax and A. The wax is uniformly dispersed into the binder resin to give a toner showing good crushability, fixability, and offset resistance.				
ST	toner electrophotog wax dispersibility binder resin; vinyl polymer polyester binder electrophotog toner				
IT	Polyesters, preparation RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (binder; toner with good wax dispersibility)				
IT	Electrophotographic toners (toner with good wax dispersibility)				
IT	Hydrocarbon waxes, uses RL: TEM (Technical or engineered material use); USES (Uses) (toner with good wax dispersibility)				
IT	Binders (vinyl polymers and polyesters; toner with good wax dispersibility)				
IT	25586-20-3P, Acrylic acid-butyl acrylate-styrene copolymer 96360-62-2P 252854-86-7P 252854-88-9P <b>252854-90-3P 252854-92-5P</b> 252854-93-6P RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); <b>PREP (Preparation)</b> ; USES (Uses) (binder; toner with good wax dispersibility)				
IT	<b>252854-90-3P 252854-92-5P</b> RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); <b>PREP (Preparation)</b> ; USES (Uses) (binder; toner with good wax dispersibility)				
RN	252854-90-3 HCAPLUS				
CN	1,4-Benzenedicarboxylic acid, polymer with bis[2-[4-[1-[4-(2-hydroxyethoxy)phenyl]-1-methylethyl]phenoxy]ethyl] (2E)-2-butenedioate, butyl 2-propenoate, 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, ethenylbenzene, .alpha.,.alpha.'-[ (1-methylethylidene)di-4,1-phenylene]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] and .alpha.,.alpha.'-[ (1-methylethylidene)di-4,1-phenylene]bis[.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)]] (9CI) (CA INDEX NAME)				

CM 1

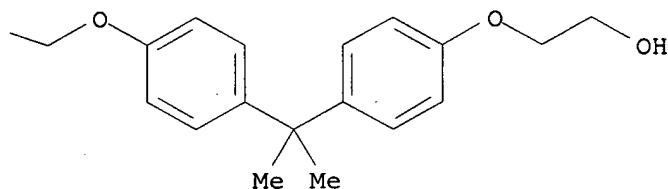
CRN 252854-89-0  
CMF C42 H48 O10

Double bond geometry as shown.

PAGE 1-A

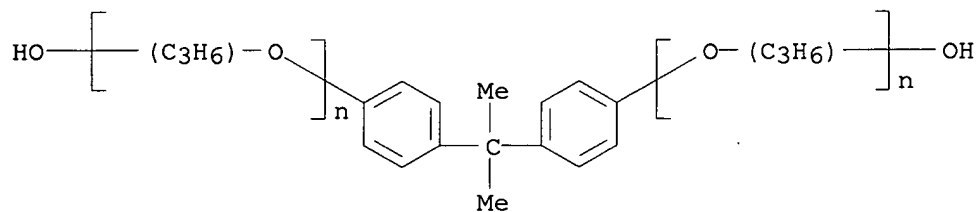


PAGE 1-B



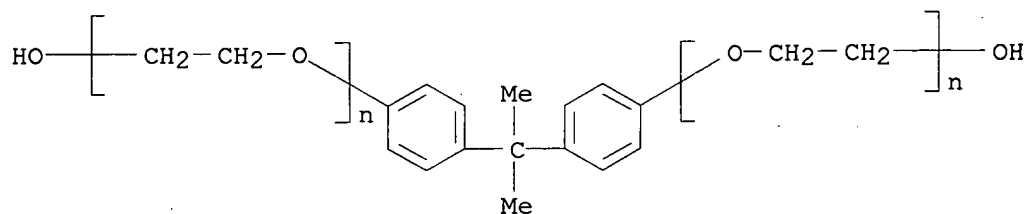
CM 2

CRN 37353-75-6  
CMF (C3 H6 O)<sub>n</sub> (C3 H6 O)<sub>n</sub> C15 H16 O2  
CCI IDS, PMS



CM 3

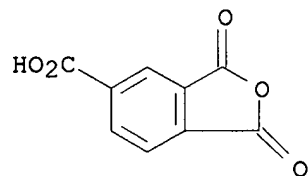
CRN 32492-61-8  
CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C15 H16 O2  
CCI PMS



CM 4

CRN 552-30-7

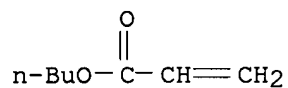
CMF C9 H4 O5



CM 5

CRN 141-32-2

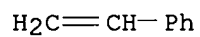
CMF C7 H12 O2



CM 6

CRN 100-42-5

CMF C8 H8

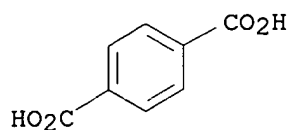


CM 7

CRN 100-21-0

CMF C8 H6 O4





RN 252854-92-5 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with bis[2-[4-[1-[4-(2-hydroxyethoxy)phenyl]-1-methylethyl]phenoxy]ethyl] (2Z)-2-butenedioate, butyl 2-propenoate, 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, ethenylbenzene, .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] and .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)]] (9CI) (CA INDEX NAME)

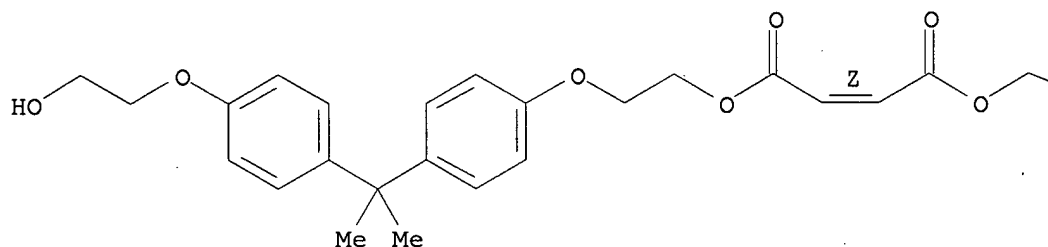
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CRN 252854-91-4

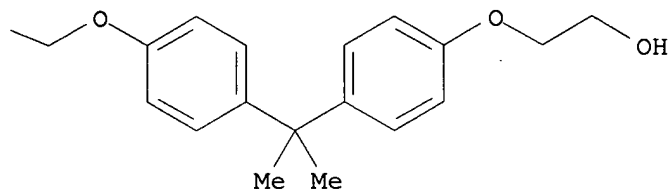
CMF C42 H48 O10

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

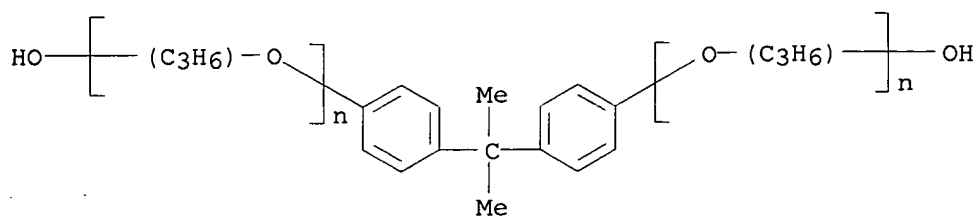


CM 2

CRN 37353-75-6

CMF (C3 H6 O)n (C3 H6 O)n C15 H16 O2

CCI IDS, PMS

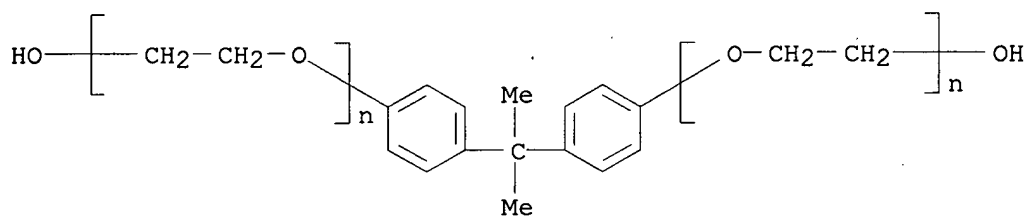


CM 3

CRN 32492-61-8

CMF (C2 H4 O)<sub>n</sub> (C2 H4 O)<sub>n</sub> C15 H16 O2

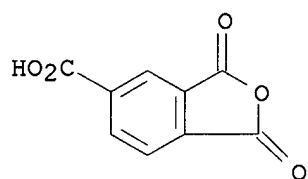
CCI PMS



CM 4

CRN 552-30-7

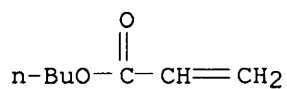
CMF C9 H4 O5



CM 5

CRN 141-32-2

CMF C7 H12 O2



CM 6

CRN 100-42-5

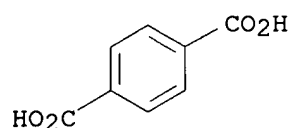
CMF C8 H8

 $\text{H}_2\text{C}=\text{CH}-\text{Ph}$ 

CM 7

CRN 100-21-0

CMF C8 H6 O4



L48 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:220207 HCAPLUS

DN 130:267894

TI Manufacture of crosslinked polymers as binders for electrophotographic toners

IN Bauer, Stephan; Czech, Erwin; Neus, Michael

PA BASF A.-G., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C08G063-12

ICS C08G063-127; C08G063-668; C08G069-44; C08G063-78; C08G081-02;  
C08F212-00; C08L025-04; G03G009-087

ICI C08F212-00, C08F220-18, C08F220-56, C08F222-06, C08F222-38, C08F220-26

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19741720	A1	19990325	DE 1997-19741720	19970922
	WO 9915577	A1	19990401	WO 1998-EP5538	19980901
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRAI DE 1997-19741720 19970922

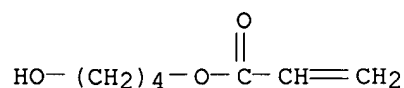
AB A title polymer is manufd. by (A) prepg. a prepolymer by radical polymn. of (a) styrene or styrene derivs. (structures specified) with (b) (meth)acrylate esters, (meth)acrylonitrile, (N-substituted) (meth)acrylamides, maleic anhydride or maleamide, (c) OH-contg. (meth)acrylates, and (d) bifunctional comonomers as crosslinking agents, and (B) reacting the prepolymer A with a polyol, polyester or polyamide and an aliph. or arom. di- or polycarboxylic acid, ester or anhydride. The resulting polymers are then blended with pigments to give electrophotog. toners. For example, a prepolymer prepd. by radical polymn. of 1,4-butanediol monoacrylate, Bu methacrylate, di-Me terephthalate, divinylbenzene, neopentyl glycol and styrene was combined with neopentyl glycol and di-Me terephthalate, the mixt. was heated with

- Fascat 4100 catalyst and the resulting crosslinked polymer melt-blended with Neopen Yellow 075 to give a title toner.
- ST butanediol monoacrylate crosslinked copolymer manuf binder electrophotog toner; methacrylate ester crosslinked copolymer manuf binder electrophotog toner; vinylbenzene crosslinker acrylic copolymer manuf binder electrophotog toner; neopentyl glycol polycondensation hydroxy functional polyacrylate binder electrophotog toner; terephthalate ester polycondensation hydroxy functional polyacrylate binder electrophotog toner
- IT Electrophotographic toners  
(manuf. of crosslinked polymers as binders for)
- IT 61901-87-9, c.i. Solvent Black 29  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Neopen Black X 55; manuf. of crosslinked polymers as binders for electrophotog. toners contg.)
- IT **222045-98-9P**, 1,4-Butanediol monoacrylate-Butyl methacrylate-Dimethyl terephthalate-Divinylbenzene-Neopentyl glycol-Styrene copolymer **222045-99-0P**, 1,4-Butanediol monoacrylate-Butyl methacrylate-Divinylbenzene-Dimethyl terephthalate-Methyl methacrylate-Neopentyl glycol-Styrene copolymer  
RL: **IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
(crosslinked; manuf. of crosslinked polymers as **binders** for electrophotog. toners)
- IT 104244-10-2, Neopen Yellow 075 221681-45-4, Neopen Magenta SE 1378 222295-50-3, Neopen Cyan FF 4238  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pigment; manuf. of crosslinked polymers as binders for electrophotog. toners contg.)
- IT **222045-98-9P**, 1,4-Butanediol monoacrylate-Butyl methacrylate-Dimethyl terephthalate-Divinylbenzene-Neopentyl glycol-Styrene copolymer **222045-99-0P**, 1,4-Butanediol monoacrylate-Butyl methacrylate-Divinylbenzene-Dimethyl terephthalate-Methyl methacrylate-Neopentyl glycol-Styrene copolymer  
RL: **IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**  
(crosslinked; manuf. of crosslinked polymers as **binders** for electrophotog. toners)
- RN 222045-98-9 HCAPLUS
- CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with butyl 2-methyl-2-propenoate, diethenylbenzene, 2,2-dimethyl-1,3-propanediol, ethenylbenzene and 4-hydroxybutyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

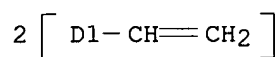
CRN 2478-10-6

CMF C7 H12 O3



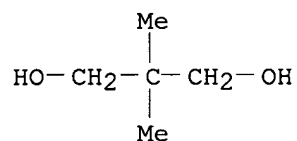
CM 2

CRN 1321-74-0  
CMF C10 H10  
CCI IDS



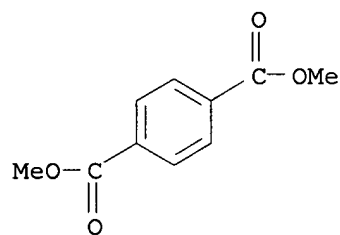
CM 3

CRN 126-30-7  
CMF C5 H12 O2



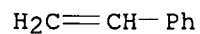
CM 4

CRN 120-61-6  
CMF C10 H10 O4



CM 5

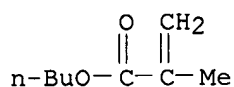
CRN 100-42-5  
CMF C8 H8



CM 6

CRN 97-88-1

CMF C8 H14 O2



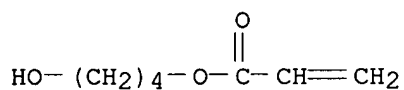
RN 222045-99-0 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with butyl  
2-methyl-2-propenoate, diethenylbenzene, 2,2-dimethyl-1,3-propanediol,  
ethenylbenzene, 4-hydroxybutyl 2-propenoate and methyl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2478-10-6

CMF C7 H12 O3

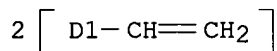


CM 2

CRN 1321-74-0

CMF C10 H10

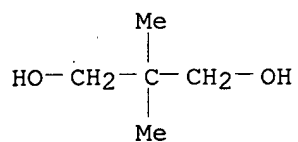
CCI IDS



CM 3

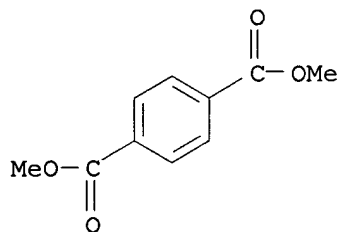
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CMF C5 H12 O2



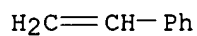
CM 4

CRN 120-61-6  
CMF C10 H10 O4



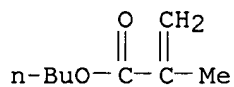
CM 5

CRN 100-42-5  
CMF C8 H8



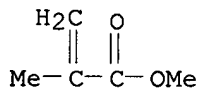
CM 6

CRN 97-88-1  
CMF C8 H14 O2



CM 7

CRN 80-62-6  
CMF C5 H8 O2



L48 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:816122 HCAPLUS

DN 130:53120

TI Intercalates and exfoliates formed with n-alkenyl amides and/or  
acrylate-functional pyrrolidone and allylic monomers, oligomers and  
copolymers and composite materials containing same

IN Tsipursky, Semeon; Beall, Gary W.; Vinokour, Elena I.

PA AMCOL International Corporation, USA

SO U.S., 16 pp., Cont.-in-part of U.S. 5,760,121.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08J005-10

ICS C08K003-34; C08L033-00

NCL 524450000

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5849830	A	19981215	US 1997-951094	19971015
	US 5552469	A	19960903	US 1995-488264	19950607
	US 5578672	A	19961126	US 1995-480080	19950607
	US 5698624	A	19971216	US 1995-488263	19950607
	US 5721306	A	19980224	US 1995-525416	19950908
	US 5760121	A	19980602	US 1996-637092	19960502
	CA 2247607	AA	19990415	CA 1998-2247607	19980917
	EP 909787	A1	19990421	EP 1998-307748	19980924

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

MX 9808504	A	20000831	MX 1998-8504	19981014
JP 11193350	A2	19990721	JP 1998-293588	19981015
US 6228903	B1	20010508	US 1999-283954	19990401

PRAI US 1995-480080 A2 19950607  
US 1995-488263 A2 19950607  
US 1995-488264 A2 19950607  
US 1995-525416 A2 19950908  
US 1996-637092 A2 19960502  
US 1996-691689 B1 19960802  
US 1997-951094 A 19971015

AB Nanocomposites are manufd. by combining a host material, such as an org. solvent or a matrix polymer and exfoliated intercalates formed by contacting a phyllosilicate with an intercalant selected from the group consisting of (1) an N-alkenyl amide monomer and an allylic monomer; (2) an oligomer formed by copolyng. an N-alkenyl amide monomer and an allylic monomer; (3) a polymer formed by copolyng. an N-alkenyl amide monomer and an allylic monomer; and (4) mixts. thereof to adsorb or the intercalant between adjacent phyllosilicate platelets. Sufficient polymer is adsorbed between adjacent phyllosilicate platelets to expand the adjacent platelets to increase the spacing at least about 10 .ANG., preferably at least about 20 .ANG. (as measured after water removal), up to about 100 .ANG. and preferably in the range of about 30-40 .ANG., so that the intercalate easily can be exfoliated, e.g., when mixed with an org. solvent or a polymer melt, to provide a carrier material for drugs and the like, or to provide a matrix polymer/platelet composite (nanocomposite) material--the platelets being exfoliated from the intercalate.

ST nanocomposite phyllosilicate intercalate alkenyl amide polymer



- IT Intercalation compounds  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (intercalates and exfoliates formed with n-alkenyl amides and/or acrylate-functional pyrrolidone and allylic monomers, oligomers and copolymers and composite materials contg. same)
- IT Polyamides, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (intercalates and exfoliates formed with n-alkenyl amides and/or acrylate-functional pyrrolidone and allylic monomers, oligomers and copolymers and composite materials contg. same)
- IT Polyesters, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (intercalates and exfoliates formed with n-alkenyl amides and/or acrylate-functional pyrrolidone and allylic monomers, oligomers and copolymers and composite materials contg. same)
- IT Silicates, preparation  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (phyllo-, intercalates with alkenylamide polymers; intercalates and exfoliates formed with n-alkenyl amides and/or acrylate-functional pyrrolidone and allylic monomers, oligomers and copolymers and composite materials contg. same)
- IT 217489-50-4DP, intercalates with phyllosilicates  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (intercalates and exfoliates formed with n-alkenyl amides and/or acrylate-functional pyrrolidone and allylic monomers, oligomers and copolymers and composite materials contg. same)
- IT 24968-12-5 **25038-59-9**, Polyethylene terephthalate, uses  
 26062-94-2, Polybutylene terephthalate 26336-38-9, Polyvinylamine  
 RL: **POF (Polymer in formulation)**; USES (Uses)  
 (intercalates and exfoliates formed with n-alkenyl amides and/or **acrylate**-functional pyrrolidone and allylic monomers, **oligomers** and copolymers and composite materials contg. same)

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

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- (2) Anon; GB 1146668 1969
- (3) Anon; DE 1642122 1970 HCAPLUS
- (4) Anon; GB 1565362 1980 HCAPLUS
- (5) Anon; EP 0205281 A3 1986 HCAPLUS
- (6) Anon; EP 0335653 A1 1989 HCAPLUS
- (7) Anon; EP 0358415 A1 1990 HCAPLUS
- (8) Anon; EP 0479031 A1 1992 HCAPLUS
- (9) Anon; EP 0548940 A1 1993 HCAPLUS
- (10) Anon; WO 93/04117 1993 HCAPLUS
- (11) Anon; WO 93/04118 1993 HCAPLUS
- (12) Anon; WO 93/11190 1993 HCAPLUS
- (13) Anon; GB 0645181 A2 1995
- (14) Anon; EP 0761739 A1 1997 HCAPLUS
- (15) Burns; US 3795650 1974 HCAPLUS
- (16) Duffield; US 3515626 1970
- (17) Francis, C; Soil Science 1973, V115(1), P40 HCAPLUS
- (18) Greigger; US 4609717 1986 HCAPLUS
- (19) Hamilton; US 2035546 1936 HCAPLUS
- (20) Hendrick; US 3419517 1968 HCAPLUS
- (21) Herman; US 4210572 1980 HCAPLUS
- (22) Hixenbaugh; US 3267058 1966
- (23) Kamigaito; US 4472538 1984 HCAPLUS
- (24) Kishida; US 4546145 1985 HCAPLUS

- (25) Klare; US 3423341 1969 HCAPLUS  
 (26) Koch; US 3483152 1969 HCAPLUS  
 (27) Kojima, Y; J Mater Res 1993, V8(5), P1185 HCAPLUS  
 (28) Laughlin; US 3929678 1975 HCAPLUS  
 (29) Levy, R; Journal of Colloid and Interface Science 1975, V50(3), P442 HCAPLUS  
 (30) Libor; US 4600744 1986 HCAPLUS  
 (31) Lyons; US 4125411 1978  
 (32) Mardis; US 4434075 1984 HCAPLUS  
 (33) McKinley; US 4500670 1985 HCAPLUS  
 (34) Mukamal; US 4400485 1983 HCAPLUS  
 (35) Osborn; US 4251576 1981 HCAPLUS  
 (36) Peppel; US 3268561 1966 HCAPLUS  
 (37) Sekmakas; US 3457324 1969 HCAPLUS  
 (38) Simone; US 3912532 1975 HCAPLUS  
 (39) Suzuki, K; Clays and Clay Minerals 1988, V36(2), P147 HCAPLUS  
 (40) Takahashi; US 3773708 1973 HCAPLUS  
 (41) Thanawalla; US 4618703 1986 HCAPLUS  
 (42) Ure; US 3419460 1968  
 (43) Usuki, A; J Mater Res 1993, V8(5), P1179 HCAPLUS  
 (44) Weber; US 4431755 1984 HCAPLUS

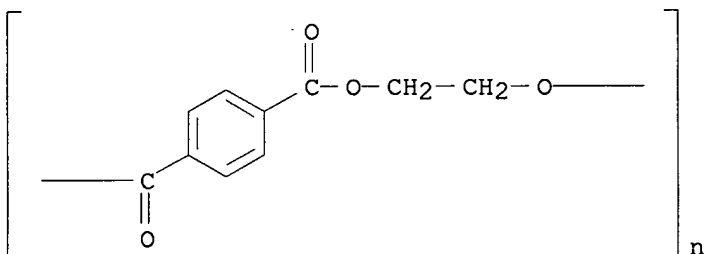
IT 25038-59-9, Polyethylene terephthalate, uses

RL: POF (Polymer in formulation); USES (Uses)

(intercalates and exfoliates formed with n-alkenyl amides and/or  
**acrylate**-functional pyrrolidone and allylic monomers,  
**oligomers** and copolymers and composite materials contg. same)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



L48 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:513671 HCAPLUS

DN 127:191980

TI Radiation-curable powder paint binder composition for heat sensitive substrate

IN Jansen, Johan Franz Gradus Antonius; Stanssens, Dirk Armand Wim; De Jong, Evert Sjoerd; Udding-Louwrier, Saskia

PA DSM N.V., Neth.; Jansen, Johan Franz Gradus Antonius; Stanssens, Dirk Armand Wim; De Jong, Evert Sjoerd; Udding-Louwrier, Saskia

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C09D005-03

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9727253	A1	19970731	WO 1997-NL14	19970115
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	NL 1002153	C2	19970804	NL 1996-1002153	19960123
	AU 9713211	A1	19970820	AU 1997-13211	19970115
PRAI	NL 1996-1002153		19960123		
	WO 1997-NL14		19970115		
AB	The title paint binder compn. for matte powder coatings on wood or wood fiber, plastics, etc., comprises a resin and optionally a crosslinker and photoinitiator, in which >0.5 mol % (based on the total amt. of polymerizable unsatn. of the binder) results from itaconic acid ester units. The polymer can be a polyester, a polyacrylate, a polyolefin or an addn. product of epoxy resins and itaconic acid. The paint compn. is storable at <40.degree. and exhibits good flow at 60-200.degree.. Thus, wood fiber panels were coated with a powder compn. contg. a polyester (acid value 7.6 mg KOH/g, OH value 61 mg KOH/g, glass transition temp. 40.degree.) of itaconic acid, neopentyl glycol, terephthalic acid, and trimethylolpropane, a crosslinker Uralac ZW 3307P, Irgacure 184, and flow aid BYK 361 and cured with a UV lamp (1 J/cm2) to give coated panels with acetone resistance and 20/60.degree. gloss 7/1.				
ST	radiation curable itaconic polymer powder paint; wood coating radiation curable powder; plastic coating radiation curable powder; matte powder paint radiation cured; flatted powder paint radiation cured; polyester itaconic powder paint radiation cured				
IT	Alkyd resins RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (Uralac P 2115, reaction products with itaconic anhydride; radiation-curable powder paint binder compn. for heat sensitive substrate)				
IT	Polyesters, uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (itaconic group-contg.; radiation-curable powder paint binder compn. for heat sensitive substrate)				
IT	Coating materials (matte, powder, itaconic modified polyester binder for; radiation-curable powder paint binder compn. for heat sensitive substrate)				
IT	Wood (radiation-curable powder paint binder compn. for heat sensitive substrate)				
IT	2170-03-8DP, Itaconic anhydride, reaction product with hydroxy functional polyester 194032-56-9P <b>194227-68-4P</b> RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (radiation-curable powder paint binder compn. for heat sensitive substrate)				
IT	<b>194032-55-8P</b> , Itaconic acid-neopentyl glycol-terephthalic acid-trimethylolpropane copolymer				

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (radiation-curable powder paint **binder** compn. for heat sensitive substrate)

IT 7429-90-5, Aluminum, miscellaneous

RL: MSC (Miscellaneous)  
 (substrate; radiation-curable powder paint binder compn. for heat sensitive substrate)

IT **194227-68-4P**

RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(radiation-curable powder paint **binder** compn. for heat sensitive substrate)

RN 194227-68-4 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, methylenebutanedioic acid and Uralac ZW 3307P (9CI) (CA INDEX NAME)

CM 1

CRN 194165-93-0

CMF Unspecified

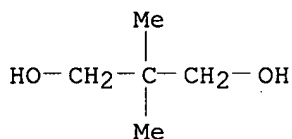
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 126-30-7

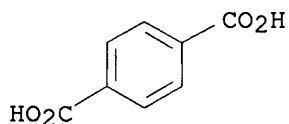
CMF C5 H12 O2



CM 3

CRN 100-21-0

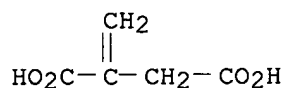
CMF C8 H6 O4



CM 4

CRN 97-65-4

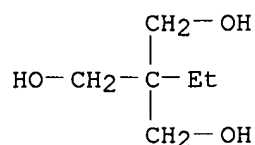
CMF C5 H6 O4



CM 5

CRN 77-99-6

CMF C6 H14 O3



IT **194032-55-8P**, Itaconic acid-neopentyl glycol-terephthalic acid-trimethylolpropane copolymer

RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)

(radiation-curable powder paint **binder** compn. for heat sensitive substrate)

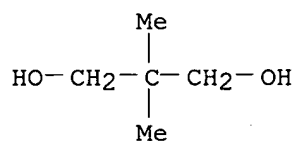
RN 194032-55-8 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and methylenebutanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

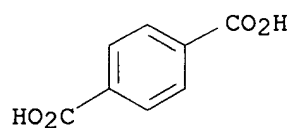
CMF C5 H12 O2



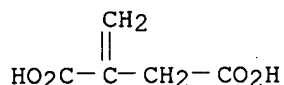
CM 2

CRN 100-21-0

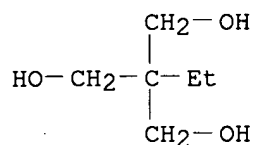
CMF C8 H6 O4



CM 3

CRN 97-65-4  
CMF C5 H6 O4

CM 4

CRN 77-99-6  
CMF C6 H14 O3

L48 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:388719 HCAPLUS

DN 127:18508

TI Nontoxic colored polyester-based aqueous dispersions with good adhesion to substrate surface

IN Maeda, Goshi; Shimomura, Tetsuo; Hotta, Yasunari; Yamada, Yozo

PA Toyobo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L067-00

ICS C09D011-00; C09D011-10; C09D167-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

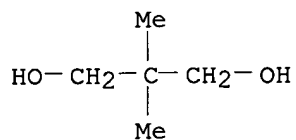
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09100396	A2	19970415	JP 1995-260021	19951006
PRAI	JP 1995-260021		19951006		

AB The dispersions useful as water-based marking and recording or printing inks, coatings, etc., are prepd. by dispersing fine pigmented or/and dyed particles contg. mainly polyesters in medium contg. mainly water to the substrate consistency S and dispersion viscosity .eta.i (in cPs at 20.degree.) in such a way that {log(.eta.i)-log(.eta.0)}/([S]2).gtoreq.5 (provided that 0.05.ltoreq.S.ltoreq.0.5 and .eta.0 is the viscosity of medium) for reducing feathering and smearing and clogging of delivery tool nozzle. Thus, dissolving 200 parts a polyester derived from di-Me isophthalate, di-Me terephthalate, di-Me 5-sodiosulfoisophthalate, neopentyl glycol and ethylene glycol in MEK 100 and THF 50 mixed solvent contg. T-77 dye 14 parts at 70.degree., adding the soln. to 500 parts

water at 70.degree., mixing and distg. until a fraction having b.p. 103.degree. is reached gave an aq. dispersion having .eta.i 4.2, .eta.0 1.7, S 21.0%, and good ink performance.

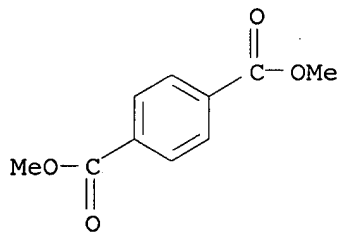
- ST colored polyester waterborne ink dispersion; marking ink aq polyester dispersion; coating waterborne polyester dispersion; smear resistance aq polyester ink; recording ink waterborne polyester dispersion; printer ink waterborne polyester dispersion; feathering resistance aq polyester dispersion
- IT Polyesters, preparation  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(binders; nontoxic colored polyester-based aq. dispersions with good adhesion to substrate surface)
- IT Coating materials  
Inks.  
(nontoxic colored polyester-based aq. dispersions with good adhesion to substrate surface)
- IT 81977-96-0P, Dimethyl isophthalate-dimethyl 5-sodiosulfoisophthalate-dimethyl terephthalate-ethylene glycol-neopentyl glycol copolymer  
184900-08-1P, Dimethyl cyclohexanedicarboxylate-ethylene glycol-tricyclodecanedimethanol-trimellitic anhydride copolymer  
190124-76-6P, 4-Cyclohexene-1,2-dicarboxylic acid-dimethyl isophthalate-dimethyl 5-sodiosulfoisophthalate-dimethyl terephthalate-ethylene glycol-neopentyl glycol copolymer  
**190124-86-8P**, 4-Cyclohexene-1,2-dicarboxylic acid-dimethyl isophthalate-dimethyl 5-sodiosulfoisophthalate-dimethyl terephthalate-ethylene glycol-neopentyl glycol copolymer salt with dimethylaminoethyl methacrylate  
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(binders; nontoxic colored polyester-based aq. dispersions with good adhesion to substrate surface)
- IT 156108-08-6, T 77 (Toner)  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(nontoxic colored polyester-based aq. dispersions with good adhesion to substrate surface)
- IT **190124-86-8P**, 4-Cyclohexene-1,2-dicarboxylic acid-dimethyl isophthalate-dimethyl 5-sodiosulfoisophthalate-dimethyl terephthalate-ethylene glycol-neopentyl glycol copolymer salt with dimethylaminoethyl methacrylate  
RL: **IMF (Industrial manufacture)**; PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(binders; nontoxic colored polyester-based aq. dispersions with good adhesion to substrate surface)
- RN 190124-86-8 HCAPLUS
- CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 4-cyclohexene-1,2-dicarboxylic acid, dimethyl 1,3-benzenedicarboxylate, dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol and 1,2-ethanediol, compd. with 2-(dimethylamino)ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
- CM 1
- CRN 2867-47-2
- CMF C8 H15 N O2



CM 6

CRN 120-61-6

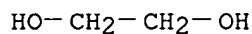
CMF C10 H10 O4



CM 7

CRN 107-21-1

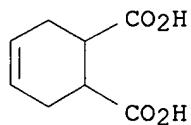
CMF C2 H6 O2



CM 8

CRN 88-98-2

CMF C8 H10 O4



L48 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:377429 HCAPLUS

DN 127:18587

TI Polyester compositions for hot water-resistant water-thinned coatings

IN Nakatani, Ken; Riku, Shuichiro

PA Takamatsu Yushi K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent



LA Japanese

IC ICM C09D163-00

ICS B05D007-24; C08L051-08; C08L063-00; C09D011-10; C09D151-08;  
D06M015-55; D21H019-24

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 40, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09100440	A2	19970415	JP 1995-291598	19951002
PRAI	JP 1995-291598		19951002		

AB The compns., useful for nonwoven textile binders, coatings, antifogging agents, etc., contain (A) modified polyesters obtained by polymg. radically polymerizable vinyl monomers contg. glycidyl groups in aq. solns. or dispersions of polyesters contg. carboxylic acid salts and with mol. wt. 2000-30,000 and (B) crosslinking agents contg. .gtoreq.2 epoxy groups at ratio Y/X = 0.2-5 (X = equiv. of CO2H in polyester; Y = equiv. of epoxy groups in crosslinking agent). Thus, 80 parts 15%-solid soln. of 1163:217:365:94:362 isophthalic acid-ethylene glycol-neopentyl glycol-trimethylolpropane-trimellitic acid copolymer was polyemd. with 5 parts styrene and 3 parts glycidyl methacrylate at 70-80.degree. to give a 23%-solid soln., 100 parts of which was blended with 3 parts Denacol EX 313. A polyester nonwoven fabric was soaked in the blend, squeezed, and set at 150.degree. to give an abrasive cloth for ceramics.

ST polyester glycidyl modification water resistant coating; glycidyl methacrylate polyester nonwoven fabric binder; epoxy crosslinking agent glycidyl polyester coating; hardener epoxy glycidyl polyester coating

IT Antifogging agents  
(aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

IT Nonwoven fabrics  
RL: MSC (Miscellaneous)  
(aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

IT Polyesters, preparation  
Polyesters, preparation  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(epoxy; aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

IT Coating materials  
(heat-resistant; aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

IT Epoxy resins, preparation  
Epoxy resins, preparation  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyester-; aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

IT Coating materials  
(transparent; aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

IT Coating materials

Coating materials

(water-resistant, water-thinned; aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

IT 189940-10-1P 189940-11-2P 189940-13-4P  
189940-14-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

IT 189940-10-1P 189940-11-2P 189940-13-4P  
189940-14-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aq. polyester compns. contg. epoxies for hot water-resistant coatings, nonwoven fabric binders, and film antifogging agents)

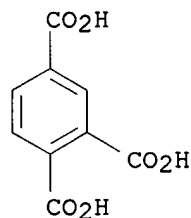
RN 189940-10-1 HCAPLUS

CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, 1,3(or 2,3)-bis(oxiranylmethoxy)propanol, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 528-44-9

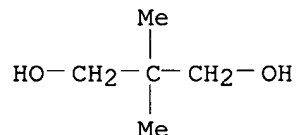
CMF C9 H6 O6



CM 2

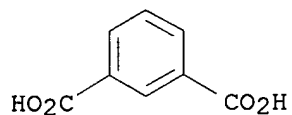
CRN 126-30-7

CMF C5 H12 O2



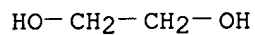
CM 3

CRN 121-91-5  
CMF C8 H6 O4



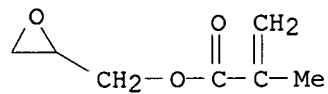
CM 4

CRN 107-21-1  
CMF C2 H6 O2



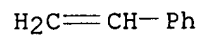
CM 5

CRN 106-91-2  
CMF C7 H10 O3



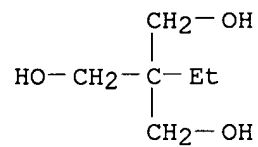
CM 6

CRN 100-42-5  
CMF C8 H8



CM 7

CRN 77-99-6  
CMF C6 H14 O3

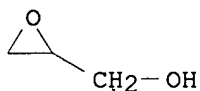


CM 8

CRN 27043-36-3  
CMF C9 H16 O5  
CCI IDS

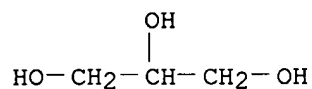
CM 9

CRN 556-52-5  
CMF C3 H6 O2



CM 10

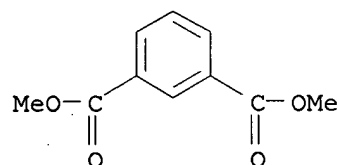
CRN 56-81-5  
CMF C3 H8 O3



RN 189940-11-2 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,3(or 2,3)-bis(oxiranylmethoxy)propanol, 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, methyl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

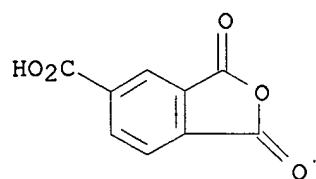
CM 1

CRN 1459-93-4  
CMF C10 H10 O4



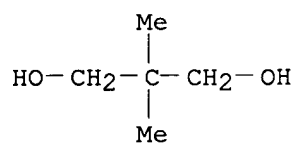
CM 2

CRN 552-30-7  
CMF C9 H4 O5



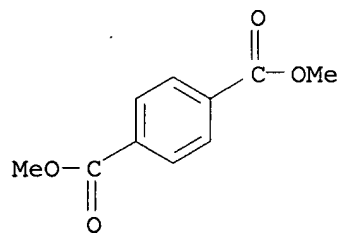
CM 3

CRN 126-30-7  
CMF C5 H12 O2



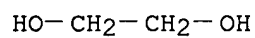
CM 4

CRN 120-61-6  
CMF C10 H10 O4



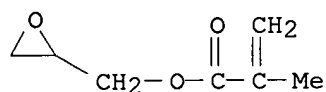
CM 5

CRN 107-21-1  
CMF C2 H6 O2



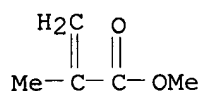
CM 6

CRN 106-91-2  
CMF C7 H10 O3



CM 7

CRN 80-62-6  
CMF C5 H8 O2

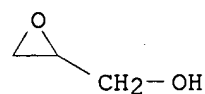


CM 8

CRN 27043-36-3  
CMF C9 H16 O5  
CCI IDS

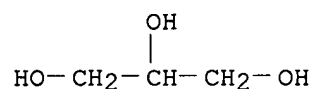
CM 9

CRN 556-52-5  
CMF C3 H6 O2



CM 10

CRN 56-81-5  
CMF C3 H8 O3



RN 189940-13-4 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with Denacol EX 1101, 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, dimethyl 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-hydroxyethyl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

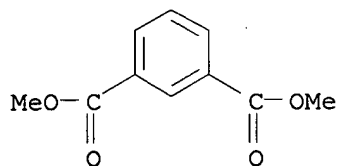
CRN 151354-28-8

CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

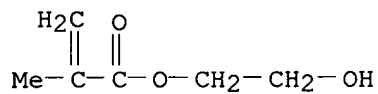
CM 2

CRN 1459-93-4  
CMF C10 H10 O4



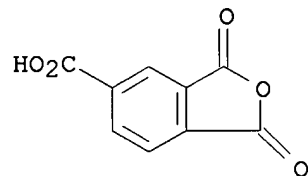
CM 3

CRN 868-77-9  
CMF C6 H10 O3



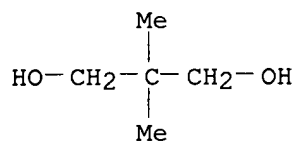
CM 4

CRN 552-30-7  
CMF C9 H4 O5



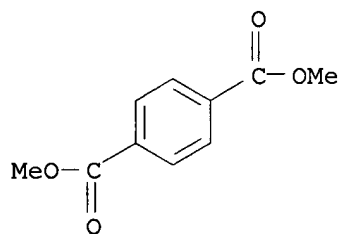
CM 5

CRN 126-30-7  
CMF C5 H12 O2



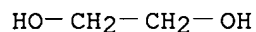
CM 6

CRN 120-61-6  
CMF C10 H10 O4



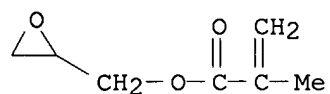
CM 7

CRN 107-21-1  
CMF C2 H6 O2



CM 8

CRN 106-91-2  
CMF C7 H10 O3

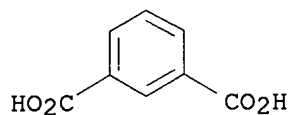


RN 189940-14-5 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, 1,3(or 2,3)-bis(oxiranylmethoxy)propanol, butyl 2-methyl-2-propenoate, 1,2-ethanediol, oxiranylmethyl 2-methyl-2-propenoate and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

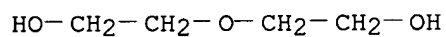
CRN 121-91-5  
CMF C8 H6 O4





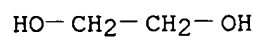
CM 2

CRN 111-46-6  
CMF C4 H10 O3



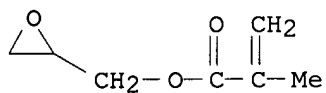
CM 3

CRN 107-21-1  
CMF C2 H6 O2



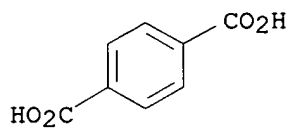
CM 4

CRN 106-91-2  
CMF C7 H10 O3



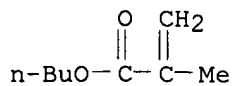
CM 5

CRN 100-21-0  
CMF C8 H6 O4



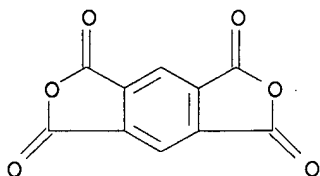
CM 6

CRN 97-88-1  
CMF C8 H14 O2



CM 7

CRN 89-32-7  
CMF C10 H2 O6

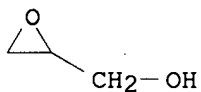


CM 8

CRN 27043-36-3  
CMF C9 H16 O5  
CCI IDS

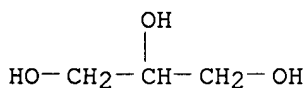
CM 9

CRN 556-52-5  
CMF C3 H6 O2



CM 10

CRN 56-81-5  
CMF C3 H8 O3



L48 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:361181 HCAPLUS

DN 127:12436

TI Magnetic recording material containing quaternary ammonium-substituted polyester-polyurethane binder

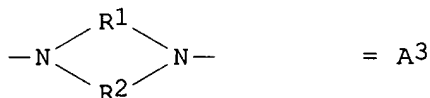
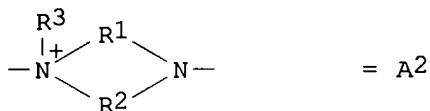
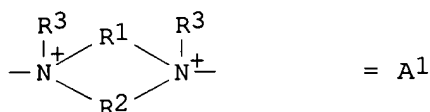
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

IN Tsunoda, Shohei; Sasahara, Toshiaki; Konishi, Shin  
 PA Nippon Polyurethane Industry Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM G11B005-702  
 ICS C09D005-23; C09D175-06  
 CC 77-8 (Magnetic Phenomena)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09073625	A2	19970318	JP 1995-251827	19950905
PRAI	JP 1995-251827		19950905		
GI					



- AB The recording material has a magnetic layer contg. a polyurethane having a structure  $\text{OCOCR}'\text{HCH}_2\text{ACH}_2\text{CR}'\text{HCO}_2$  [I; A =  $\text{N}+\text{RR}^3\text{X}-$ , A1, A2; R = (substituted) alkyl, aryl, aralkyl; R' = H, alkyl; R1, R2 = alkylene; R3 = alkyl; X- = anion], which is preferably obtained by treating an org. diisocyanate with a long-chain polyols contg. I (A = NR, A3) and an optional chain-extending agent, followed by reaction with an alkylating agent to quaternize the tertiary amino group to quaternary one. Magnetic powders in the magnetic layer showed good dispersibility and dispersion stability in the polyurethane binder.
- ST magnetic recording quaternary ammonium polyurethane binder; polyester polyurethane magnetic recording binder dispersibility
- IT Magnetic recording materials  
 (magnetic recording material contg. quaternary ammonium-substituted polyester-polyurethane binder)
- IT Polyurethanes, uses  
 Polyurethanes, uses  
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

- (polycarbonate-; magnetic recording material contg. quaternary ammonium-substituted polyester-polyurethane binder)
- IT Polyurethanes, uses  
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
 (polyester-; magnetic recording material contg. quaternary ammonium-substituted polyester-polyurethane binder)
- IT Polycarbonates, uses  
 Polycarbonates, uses  
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
 (polyurethane-; magnetic recording material contg. quaternary ammonium-substituted polyester-polyurethane binder)
- IT **189081-17-2DP**, 4,4'-Diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid copolymer, quaternized  
**189081-18-3DP**, Adipic acid-1,4-butanediol-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-piperazine copolymer, quaternized  
**189081-19-4DP**, .epsilon.-Caprolactone-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid copolymer, quaternized  
**189081-20-7DP**, 2-Butyl-2-ethyl-1,3-propanediol-.epsilon.-caprolactone-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid copolymer, quaternized **189081-21-8DP**, .epsilon.-Caprolactone-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid-trimethylolpropane copolymer, quaternized **189081-23-0DP**, N,N-Dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189081-27-4DP**, .epsilon.-Caprolactone-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189081-31-0DP**, .epsilon.-Caprolactone-diethyl carbonate-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-1,6-hexanediol-2-hydroxyethyl acrylate copolymer, quaternized **189081-33-2DP**, .epsilon.-Caprolactone-1,4-cyclohexanedimethanol-diethyl carbonate-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate copolymer, quaternized **189081-35-4DP**, Adipic acid-1,4-butanediol-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189638-33-3DP**, 1,4-Butanediol-2-butyl-2-ethyl-1,3-propanediol-.epsilon.-caprolactone-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid copolymer, quaternized **189638-34-4DP**, 4,4'-Diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid-trimethylolpropane copolymer, quaternized **189638-35-5DP**, 1-Butyl-2-ethyl-1,3-propanediol-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189638-36-6DP**, 1-Butyl-2-ethyl-1,3-propanediol-.epsilon.-caprolactone-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189638-37-7DP**, Adipic acid-1,4-butanediol-1-butyl-2-ethyl-1,3-

propanediol-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized

RL: DEV (Device component use); **IMF (Industrial manufacture);**

**PREP (Preparation);** USES (Uses)

(magnetic recording material contg. quaternary ammonium-substituted polyester-polyurethane **binder**)

IT **189081-17-2DP**, 4,4'-Diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid copolymer, quaternized  
**189081-19-4DP**, .epsilon.-Caprolactone-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid copolymer, quaternized  
**189081-20-7DP**, 2-Butyl-2-ethyl-1,3-propanediol-.epsilon.-caprolactone-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid copolymer, quaternized **189081-21-8DP**, .epsilon.-Caprolactone-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid-trimethylolpropane copolymer, quaternized **189081-23-0DP**, N,N-Dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189081-27-4DP**, .epsilon.-Caprolactone-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189081-35-4DP**, Adipic acid-1,4-butanediol-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189638-33-3DP**, 1,4-Butanediol-2-butyl-2-ethyl-1,3-propanediol-.epsilon.-caprolactone-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid copolymer, quaternized **189638-34-4DP**, 4,4'-Diphenylmethane diisocyanate-ethylene glycol-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-piperazine-terephthalic acid-trimethylolpropane copolymer, quaternized **189638-35-5DP**, 1-Butyl-2-ethyl-1,3-propanediol-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189638-36-6DP**, 1-Butyl-2-ethyl-1,3-propanediol-.epsilon.-caprolactone-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized **189638-37-7DP**, Adipic acid-1,4-butanediol-1-butyl-2-ethyl-1,3-propanediol-N,N-dimethyl-1,3-propanediamine-4,4'-diphenylmethane diisocyanate-2-hydroxyethyl acrylate-isophthalic acid-neopentyl glycol-terephthalic acid copolymer, quaternized

RL: DEV (Device component use); **IMF (Industrial manufacture);**

**PREP (Preparation);** USES (Uses)

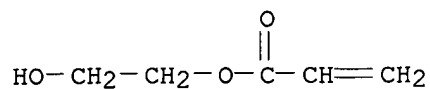
(magnetic recording material contg. quaternary ammonium-substituted polyester-polyurethane **binder**)

RN **189081-17-2 HCAPLUS**

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-hydroxyethyl 2-propenoate, 1,1'-methylenebis[4-isocyanatobenzene] and piperazine (9CI) (CA INDEX NAME)

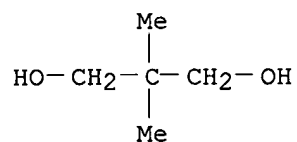
CM 1

CRN 818-61-1  
CMF C5 H8 O3



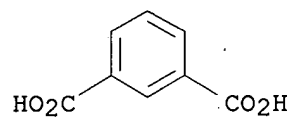
CM 2

CRN 126-30-7  
CMF C5 H12 O2



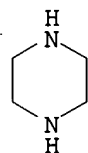
CM 3

CRN 121-91-5  
CMF C8 H6 O4



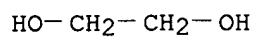
CM 4

CRN 110-85-0  
CMF C4 H10 N2



CM 5

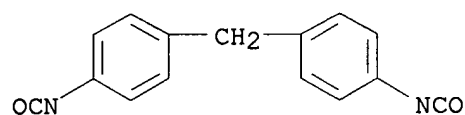
CRN 107-21-1  
CMF C2 H6 O2



CM 6

CRN 101-68-8

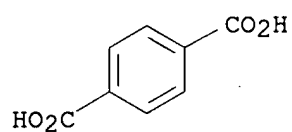
CMF C15 H10 N2 O2



CM 7

CRN 100-21-0

CMF C8 H6 O4



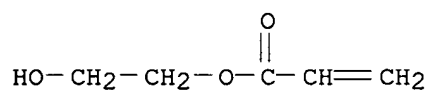
RN 189081-19-4 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-hydroxyethyl 2-propenoate, 1,1'-methylenebis[4-isocyanatobenzene], 2-oxepanone and piperazine (9CI)  
(CA INDEX NAME)

CM 1

CRN 818-61-1

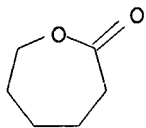
CMF C5 H8 O3



CM 2

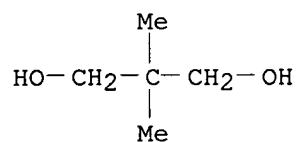
CRN 502-44-3

CMF C6 H10 O2



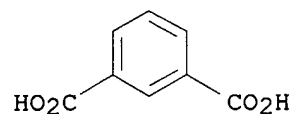
CM 3

CRN 126-30-7  
CMF C5 H12 O2



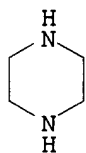
CM 4

CRN 121-91-5  
CMF C8 H6 O4



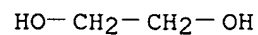
CM 5

CRN 110-85-0  
CMF C4 H10 N2



CM 6

CRN 107-21-1  
CMF C2 H6 O2

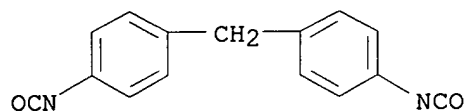




CM 7

CRN 101-68-8

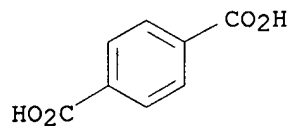
CMF C15 H10 N2 O2



CM 8

CRN 100-21-0

CMF C8 H6 O4



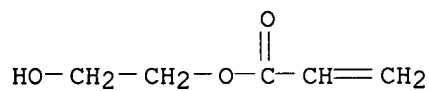
RN 189081-20-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2-butyl-2-ethyl-1,3-propanediol, 2,2-dimethyl-1,3-propanediol, 2-hydroxyethyl 2-propenoate, 1,1'-methylenebis[4-isocyanatobenzene], 2-oxepanone and piperazine (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1

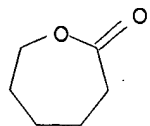
CMF C5 H8 O3



CM 2

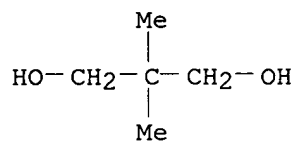
CRN 502-44-3

CMF C6 H10 O2



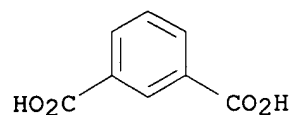
CM 3

CRN 126-30-7  
CMF C5 H12 O2



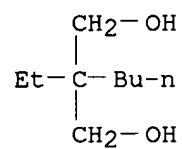
CM 4

CRN 121-91-5  
CMF C8 H6 O4



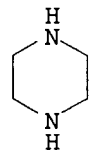
CM 5

CRN 115-84-4  
CMF C9 H20 O2



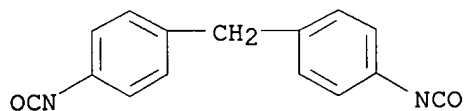
CM 6

CRN 110-85-0  
CMF C4 H10 N2



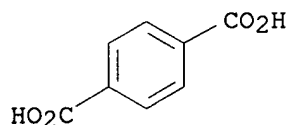
CM 7

CRN 101-68-8  
CMF C15 H10 N2 O2



CM 8

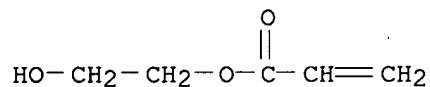
CRN 100-21-0  
CMF C8 H6 O4



RN 189081-21-8 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 2-hydroxyethyl 2-propenoate, 1,1'-methylenebis[4-isocyanatobenzene], 2-oxepanone and piperazine (9CI) (CA INDEX NAME)

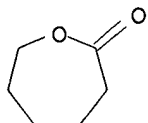
CM 1

CRN 818-61-1  
CMF C5 H8 O3



CM 2

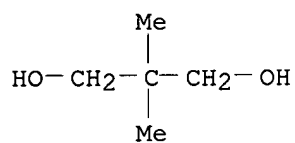
CRN 502-44-3  
CMF C6 H10 O2



CM 3

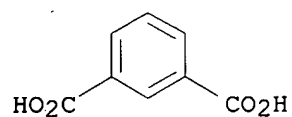
CRN 126-30-7

CMF C5 H12 O2



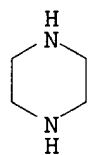
CM 4

CRN 121-91-5  
CMF C8 H6 O4



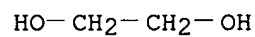
CM 5

CRN 110-85-0  
CMF C4 H10 N2



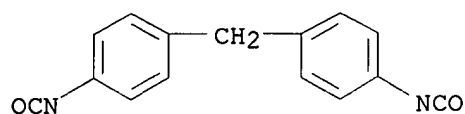
CM 6

CRN 107-21-1  
CMF C2 H6 O2



CM 7

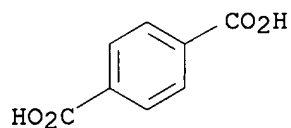
CRN 101-68-8  
CMF C15 H10 N2 O2



CM 8

CRN 100-21-0

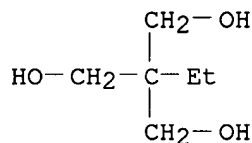
CMF C8 H6 O4



CM 9

CRN 77-99-6

CMF C6 H14 O3



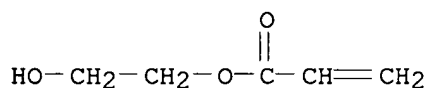
RN 189081-23-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, N,N-dimethyl-1,3-propanediamine, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-hydroxyethyl 2-propenoate and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1

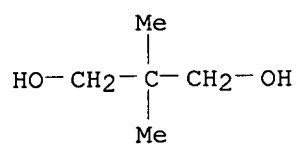
CMF C5 H8 O3



CM 2

CRN 126-30-7

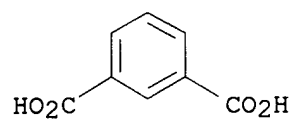
CMF C5 H12 O2



CM 3

CRN 121-91-5

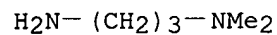
CMF C8 H6 O4



CM 4

CRN 109-55-7

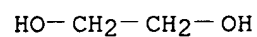
CMF C5 H14 N2



CM 5

CRN 107-21-1

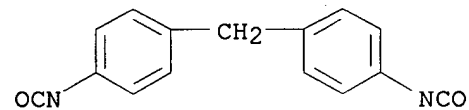
CMF C2 H6 O2



CM 6

CRN 101-68-8

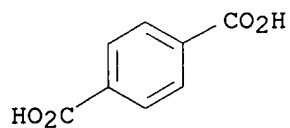
CMF C15 H10 N2 O2



CM 7

CRN 100-21-0

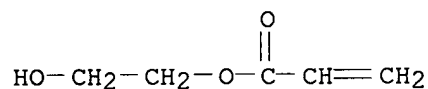
CMF C8 H6 O4



RN 189081-27-4 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid,  
 N,N-dimethyl-1,3-propanediamine, 2,2-dimethyl-1,3-propanediol,  
 1,2-ethanediol, 2-hydroxyethyl 2-propenoate, 1,1'-methylenebis[4-  
 isocyanatobenzene] and 2-oxepanone (9CI) (CA INDEX NAME)

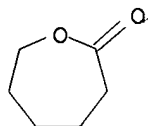
CM 1

CRN 818-61-1  
 CMF C5 H8 O3



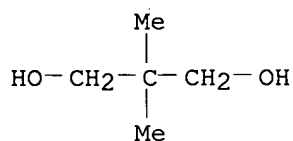
CM 2

CRN 502-44-3  
 CMF C6 H10 O2



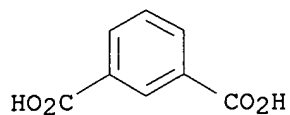
CM 3

CRN 126-30-7  
 CMF C5 H12 O2



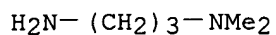
CM 4

CRN 121-91-5  
 CMF C8 H6 O4



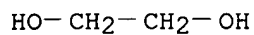
CM 5

CRN 109-55-7  
CMF C5 H14 N2



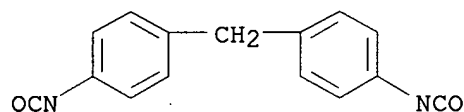
CM 6

CRN 107-21-1  
CMF C2 H6 O2



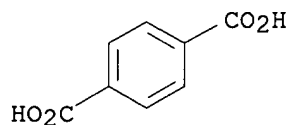
CM 7

CRN 101-68-8  
CMF C15 H10 N2 O2



CM 8

CRN 100-21-0  
CMF C8 H6 O4



RN 189081-35-4 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid,  
1,4-butanediol, N,N-dimethyl-1,3-propanediamine, 2,2-dimethyl-1,3-  
propanediol, 1,2-ethanediol, hexanedioic acid, 2-hydroxyethyl 2-propenoate

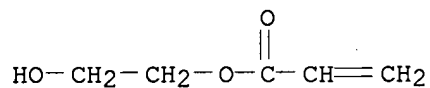


and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1

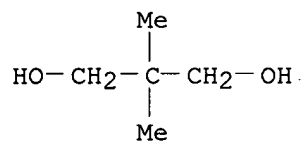
CMF C5 H8 O3



CM 2

CRN 126-30-7

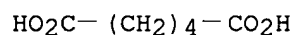
CMF C5 H12 O2



CM 3

CRN 124-04-9

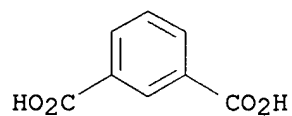
CMF C6 H10 O4



CM 4

CRN 121-91-5

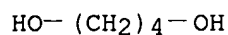
CMF C8 H6 O4



CM 5

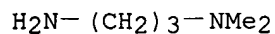
CRN 110-63-4

CMF C4 H10 O2



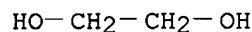
CM 6

CRN 109-55-7  
CMF C5 H14 N2



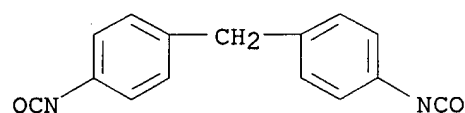
CM 7

CRN 107-21-1  
CMF C2 H6 O2



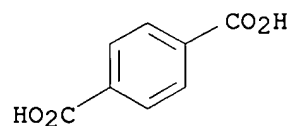
CM 8

CRN 101-68-8  
CMF C15 H10 N2 O2



CM 9

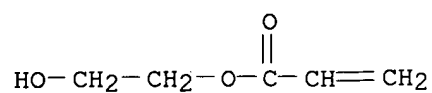
CRN 100-21-0  
CMF C8 H6 O4



RN 189638-33-3 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 1,4-butanediol, 2-butyl-2-ethyl-1,3-propanediol, 2,2-dimethyl-1,3-propanediol, 2-hydroxyethyl 2-propenoate, 1,1'-methylenebis[4-isocyanatobenzene], 2-oxepanone and piperazine (9CI) (CA INDEX NAME)

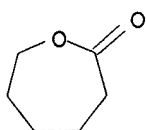
CM 1

CRN 818-61-1  
CMF C5 H8 O3



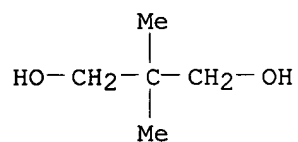
CM 2

CRN 502-44-3  
CMF C6 H10 O2



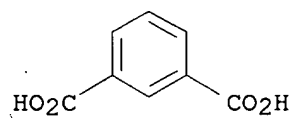
CM 3

CRN 126-30-7  
CMF C5 H12 O2



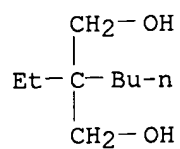
CM 4

CRN 121-91-5  
CMF C8 H6 O4



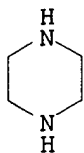
CM 5

CRN 115-84-4  
CMF C9 H20 O2



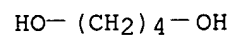
CM 6

CRN 110-85-0  
CMF C4 H10 N2



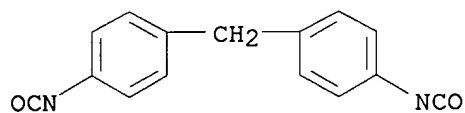
CM 7

CRN 110-63-4  
CMF C4 H10 O2



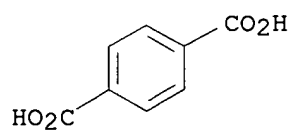
CM 8

CRN 101-68-8  
CMF C15 H10 N2 O2



CM 9

CRN 100-21-0  
CMF C8 H6 O4



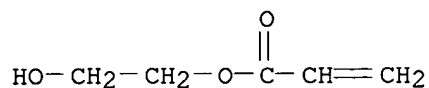
RN 189638-34-4 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 2-hydroxyethyl 2-propenoate, 1,1'-methylenebis[4-isocyanatobenzene] and piperazine (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1

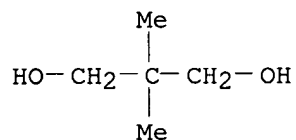
CMF C5 H8 O3



CM 2

CRN 126-30-7

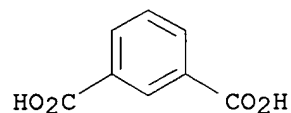
CMF C5 H12 O2



CM 3

CRN 121-91-5

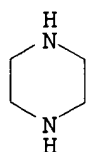
CMF C8 H6 O4



CM 4

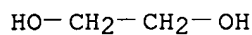
CRN 110-85-0

CMF C4 H10 N2



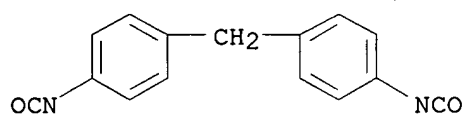
CM 5

CRN 107-21-1  
CMF C2 H6 O2



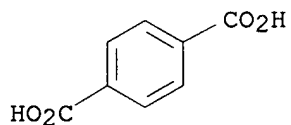
CM 6

CRN 101-68-8  
CMF C15 H10 N2 O2



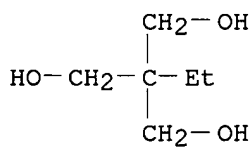
CM 7

CRN 100-21-0  
CMF C8 H6 O4



CM 8

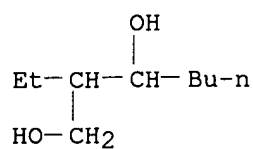
CRN 77-99-6  
CMF C6 H14 O3



RN 189638-35-5 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid,  
N,N-dimethyl-1,3-propanediamine, 2,2-dimethyl-1,3-propanediol,  
2-ethyl-1,3-heptanediol, 2-hydroxyethyl 2-propenoate and  
1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

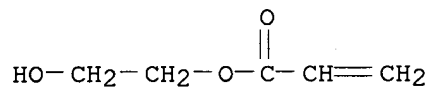
CM 1

CRN 39775-59-2  
CMF C9 H20 O2



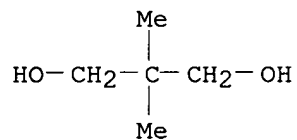
CM 2

CRN 818-61-1  
CMF C5 H8 O3



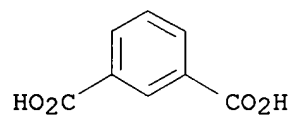
CM 3

CRN 126-30-7  
CMF C5 H12 O2



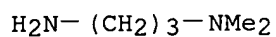
CM 4

CRN 121-91-5  
CMF C8 H6 O4



CM 5

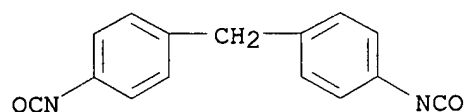
CRN 109-55-7  
CMF C5 H14 N2



CM 6

CRN 101-68-8

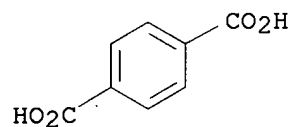
CMF C15 H10 N2 O2



CM 7

CRN 100-21-0

CMF C8 H6 O4



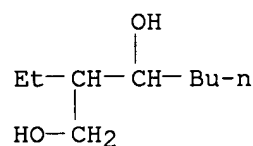
RN 189638-36-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, N,N-dimethyl-1,3-propanediamine, 2,2-dimethyl-1,3-propanediol, 2-ethyl-1,3-heptanediol, 2-hydroxyethyl 2-propenoate, 1,1'-methylenebis[4-isocyanatobenzene] and 2-oxepanone (9CI) (CA INDEX NAME)

CM 1

CRN 39775-59-2

CMF C9 H20 O2

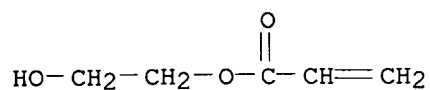


CM 2

CRN 818-61-1

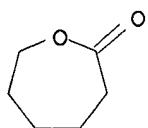
CMF C5 H8 O3





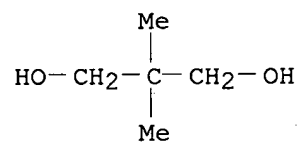
CM 3

CRN 502-44-3  
CMF C6 H10 O2



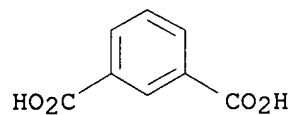
CM 4

CRN 126-30-7  
CMF C5 H12 O2



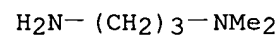
CM 5

CRN 121-91-5  
CMF C8 H6 O4



CM 6

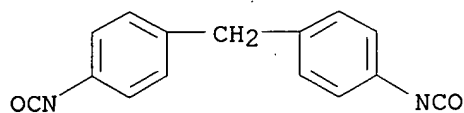
CRN 109-55-7  
CMF C5 H14 N2



CM 7

CRN 101-68-8

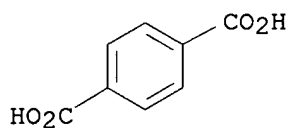
CMF C15 H10 N2 O2



CM 8

CRN 100-21-0

CMF C8 H6 O4



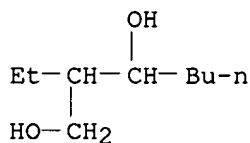
RN 189638-37-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 1,4-butanediol, N,N-dimethyl-1,3-propanediamine, 2,2-dimethyl-1,3-propanediol, 2-ethyl-1,3-heptanediol, hexanedioic acid, 2-hydroxyethyl 2-propenoate and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 39775-59-2

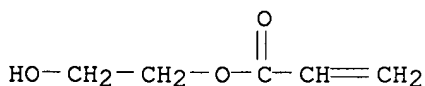
CMF C9 H20 O2



CM 2

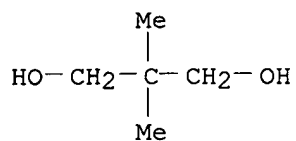
CRN 818-61-1

CMF C5 H8 O3



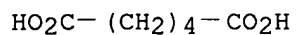
CM 3

CRN 126-30-7  
CMF C5 H12 O2



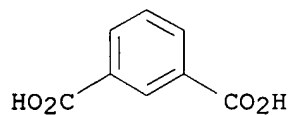
CM 4

CRN 124-04-9  
CMF C6 H10 O4



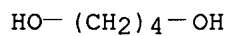
CM 5

CRN 121-91-5  
CMF C8 H6 O4



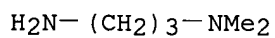
CM 6

CRN 110-63-4  
CMF C4 H10 O2



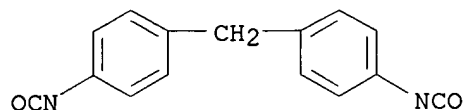
CM 7

CRN 109-55-7  
CMF C5 H14 N2



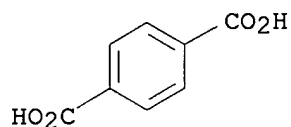
CM 8

CRN 101-68-8  
CMF C15 H10 N2 O2



CM 9

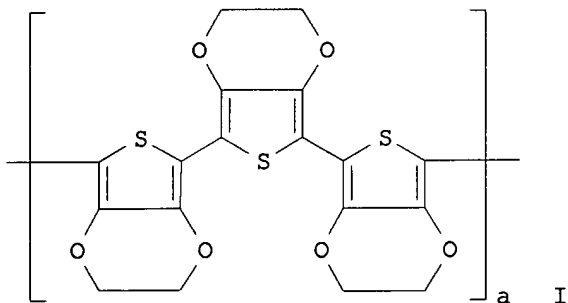
CRN 100-21-0  
CMF C8 H6 O4



L48 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
AN 1997:243709 HCAPLUS  
DN 126:239454  
TI Antistatic films with good blocking and back-transfer resistance and bonding properties  
IN Miura, Sadami; Kitazawa, Satoshi  
PA Teijin Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08J007-04  
ICS B05D005-12; B05D007-04; B05D007-24; B29C055-02; B32B027-00; B32B027-18; B32B027-36; G11B005-704; B29K067-00; B29L007-00; B29L009-00; C08L067-00  
CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 42

FAN.CNT 1

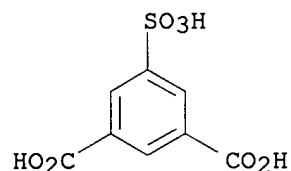
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 09031222	A2	19970204	JP 1995-185773	19950721
	JP 3210211	B2	20010917		
PRAI	JP 1995-185773		19950721		
GI					



- AB Title films are obtained by applying aq. coatings contg. antistatic polymers (prepd. by polymg. thiophene and/or thiophene derivs.) on .gtoreq.1 side of polyester films, drying, and stretching [surface resistivity of the coating film (SR) 105-1012 .OMEGA./square]. Thus, a poly(ethylene terephthalate) undrawn film was stretched 3.5 times lengthwise, coated with a compn. contg. an antistatic polymer [prepd. by doping 24 parts p-styrenesulfonic acid homopolymer (27 mol% ionized) in 14 parts copolymer I] 38, 5:3:5:92:37:4:54 (mol) adipic acid-1,4-butanediol-diethylene glycol-ethylene glycol-isophthalic acid-Na 5-sulfoisophthalate-terephthalic acid copolymer 35, and 14:45:7:3:3:32 Et acrylate-Et methacrylate-glycidyl methacrylate-2-hydroxyethyl acrylate-N-methoxymethylacrylamide-Me methacrylate copolymer 15, poly(vinyl alc.) 2, and ethylene oxide-propylene oxide block copolymer 10% on one side of the film, dried, and stretched 3.9 times crosswise to give a laminated film having SR = 1.5 .times. 1011 .OMEGA./square, good back-transfer resistance, and good ink-bonding properties.
- ST antistatic polyester film coating; thiophene polymer coating antistatic film; sulfonated polymer doped antistatic agent
- IT Polyesters, uses  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (acrylic, binders, coatings contg.; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT Polyurethanes, uses  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (binders, coatings contg.; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT Acrylic polymers, uses  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (polyester-, binders, coatings contg.; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT Coating materials  
 (thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT Polyesters, uses

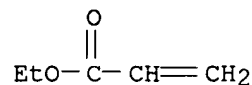
- RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT Antistatic agents  
(thiophene polymers; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT 28210-41-5D, p-Styrenesulfonic acid homopolymer, hydrolyzed  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(antistatic agent, dopant; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT **188297-89-4**  
RL: PEP (Physical, engineering or chemical process); **POF (Polymer in formulation)**; PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(**binder**, coatings contg.; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT 187103-65-7 188297-86-1  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(binders, coatings contg.; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT 188297-88-3D, polymers with thiophene and 3-(sulfonylalkyl)thiophene sodium salt  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(doped with polystyrenesulfonic acid K salt, antistatic agent, coatings contg.; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT 110-02-1D, Thiophene, polymers with 3-sulfonylalkyl- and ethoxylated thiophene, sodium salts 616-44-4D, 3-Methylthiophene, polymers with 3-sulfonylalkyl- and 3-hydroxyalkylthiophenes, sodium salts  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(doped with polystyrenesulfonic acid Na salt, antistatic agent, coatings contg.; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT 126213-51-2  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(doped with polystyrenesulfonic acid anion, antistatic agent, coatings contg.; thiophene polymer coatings for antistatic polyester films with good blocking and back-transfer resistances and bonding property)
- IT 25038-59-9, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(thiophene polymer coatings for antistatic polyester films with good

blocking and back-transfer resistances and bonding property)  
 IT 9011-99-8, Polystyrenesulfonic acid potassium salt 9080-79-9,  
 Polystyrenesulfonic acid sodium salt  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in  
 formulation); PRP (Properties); TEM (Technical or engineered material  
 use); PROC (Process); USES (Uses)  
 (thiophene polymer doped with, antistatic agent, coatings contg.;  
 thiophene polymer coatings for antistatic polyester films with good  
 blocking and back-transfer resistances and bonding property)  
 IT 188297-89-4  
 RL: PEP (Physical, engineering or chemical process); **POF (Polymer in  
 formulation)**; PRP (Properties); TEM (Technical or engineered material  
 use); PROC (Process); USES (Uses)  
 (**binder**, coatings contg.; thiophene polymer coatings for  
 antistatic polyester films with good blocking and back-transfer  
 resistances and bonding property)  
 RN 188297-89-4 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with  
 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid,  
 1,4-butanediol, 1,2-ethanediol, ethyl 2-methyl-2-propenoate, ethyl  
 2-propenoate, hexanedioic acid, 2,2'-oxybis[ethanol] and 2-propenoic acid,  
 graft (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 6362-79-4  
 CMF C8 H6 O7 S . Na

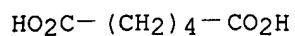


● Na

CM 2  
 CRN 140-88-5  
 CMF C5 H8 O2



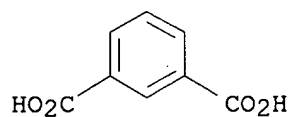
CM 3  
 CRN 124-04-9  
 CMF C6 H10 O4



CM 4

CRN 121-91-5

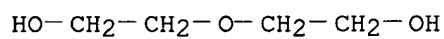
CMF C8 H6 O4



CM 5

CRN 111-46-6

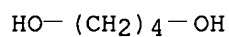
CMF C4 H10 O3



CM 6

CRN 110-63-4

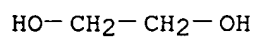
CMF C4 H10 O2



CM 7

CRN 107-21-1

CMF C2 H6 O2

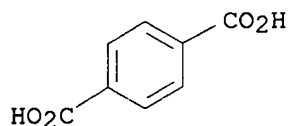


CM 8

CRN 100-21-0

CMF C8 H6 O4

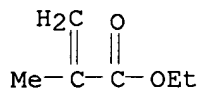




CM 9

CRN 97-63-2

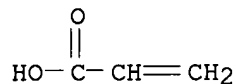
CMF C6 H10 O2



CM 10

CRN 79-10-7

CMF C3 H4 O2



L48 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1996:567044 HCAPLUS

DN 125:198702

TI Antistatic plastic films

IN Miura, Sadami; Kitazawa, Satoshi

PA Teijin Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08J007-04

ICS B29C055-02; B32B027-18; B32B027-20; B32B027-30; B32B027-36;  
C09D005-00; C09D133-00; C09D133-14; C09D167-00

ICI B29K067-00, B29L009-00

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO..	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08157625	A2	19960618	JP 1994-302161	19941206
PRAI	JP 1994-302161		19941206		

AB Title films are prepd. by coating polyester films with aq. compns. contg. (A) quaternary ammonium compds. and/or quaternary ammonium group-contg. polymers and (B) org. phosphates and/or phosphate ester group-contg. polymers, drying, and drawing. A monoaxially drawn (in the machine direction) PET film was coated with an aq. compn. contg. butanediol-diethylene glycol-ethylene glycol-isophthalic acid-neopentyl

glycol-5-sodiosulfonatoisophthalic acid-terephthalic acid copolymer 32, Et acrylate-Me methacrylate-3-(trimethylammonium)propyl acrylate methylsulfate copolymer 24, and (3-acryloxypropyl) decyl potassium phosphate-Et methacrylate-Me acrylate copolymer 29% to a 0.11-.mu.m thickness, drying, drawing in the transverse direction, and hot fixing gave a film with transparency 85% and resistivity 7.4 .times. 10<sup>11</sup> .OMEGA..

ST antistatic agent quaternary ammonium contg polymer; phosphate ester contg polymer antistatic agent; polyester film thin antistatic coating

IT Quaternary ammonium compounds, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(blends with phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

IT Polyesters, miscellaneous

RL: MSC (Miscellaneous)

(films; quaternary ammonium group-contg. compds. or polymers and phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

IT Antistatic agents

(quaternary ammonium group-contg. compds. or polymers and phosphate ester-contg. compds. or polymers for coatings for polyester films)

IT Polyesters, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic, graft, coating binder; quaternary ammonium group-contg. compds. or polymers and phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

IT Coating materials

(antistatic, coatings contg. quaternary ammonium group-contg. compds. or polymers and phosphate ester-contg. compds. or polymers for polyester films)

IT Acrylic polymers, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyester-, graft, coating binder; quaternary ammonium group-contg. compds. or polymers and phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

IT Acrylic polymers, uses

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(quaternary ammonium group-contg., blends with phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

IT 181119-44-8P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blends with phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

IT 181119-53-9

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(blends with phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

IT 181119-49-3P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blends with quaternary ammonium group-contg. compds. or polymers as

antistatic agents for coatings for polyester films)

IT 50910-72-0, DisodiumTridecyl phosphate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (blends with quaternary ammonium group-contg. compds. or polymers as antistatic agents for coatings for polyester films)

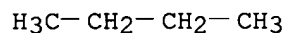
IT 181119-57-3P 181119-62-0P 181119-66-4P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (coating binder; quaternary ammonium group-contg. compds. or polymers and phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

IT 181119-62-0P 181119-66-4P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (coating binder; quaternary ammonium group-contg. compds. or polymers and phosphate ester-contg. compds. or polymers as antistatic agents for coatings for polyester films)

RN 181119-62-0 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, butanediol, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, ethyl 2-propenoate, 2-hydroxyethyl 2-propenoate, N-(methoxymethyl)-2-propenamide, methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate, 2,2'-oxybis[ethanol] and potassium 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

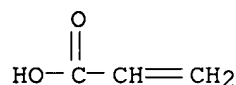
CRN 25265-75-2  
 CMF C4 H10 O2  
 CCI IDS



2 ( D1-OH )

CM 2

CRN 10192-85-5  
 CMF C3 H4 O2 . K

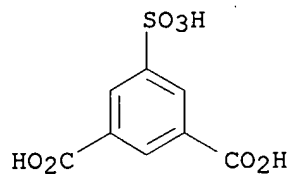


K

CM 3

CRN 6362-79-4

CMF C8 H6 O7 S . Na

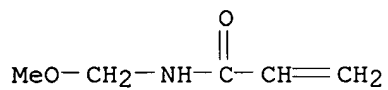


● Na

CM 4

CRN 3644-11-9

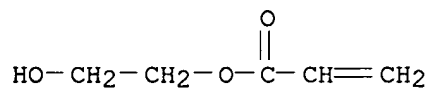
CMF C5 H9 N O2



CM 5

CRN 818-61-1

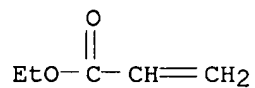
CMF C5 H8 O3



CM 6

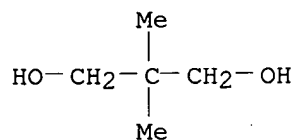
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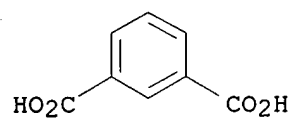
CM 7

CRN 126-30-7  
CMF C5 H12 O2



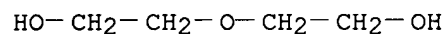
CM 8

CRN 121-91-5  
CMF C8 H6 O4



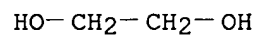
CM 9

CRN 111-46-6  
CMF C4 H10 O3



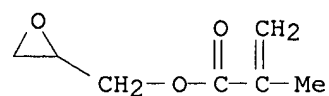
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CRN 107-21-1  
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CM 11

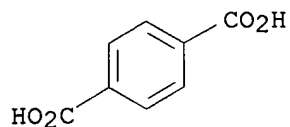
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CM 12

CRN 100-21-0

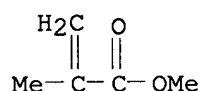
CMF C8 H6 O4



CM 13

CRN 80-62-6

CMF C5 H8 O2



RN 181119-66-4 HCAPLUS

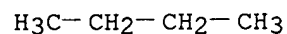
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with ammonium 2-propenoate, 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, butanediol, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and 2,2'-oxybis[ethanol], graft (9CI) (CA INDEX NAME)

CM 1

CRN 25265-75-2

CMF C4 H10 O2

CCI IDS

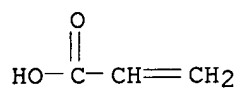


2 ( D1-OH )

CM 2

CRN 10604-69-0

CMF C3 H4 O2 . H3 N

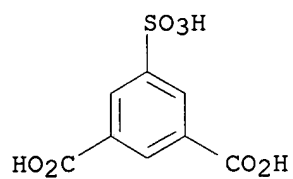


● NH<sub>3</sub>

CM 3

CRN 6362-79-4

CMF C8 H6 O7 S . Na

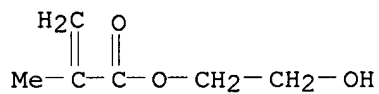


● Na

CM 4

CRN 868-77-9

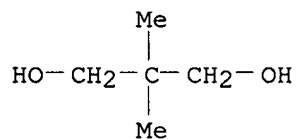
CMF C6 H10 O3



CM 5

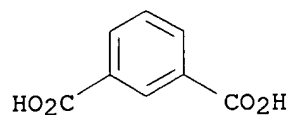
CRN 126-30-7

CMF C5 H12 O2



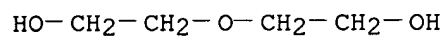
CM 6

CRN 121-91-5  
CMF C8 H6 O4



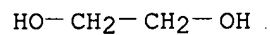
CM 7

CRN 111-46-6  
CMF C4 H10 O3



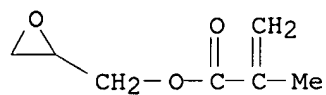
CM 8

CRN 107-21-1  
CMF C2 H6 O2



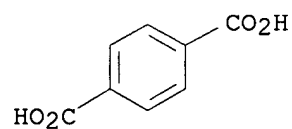
CM 9

CRN 106-91-2  
CMF C7 H10 O3



CM 10

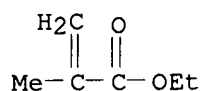
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CM 11

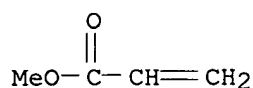


CRN 97-63-2  
CMF C6 H10 O2



CM 12

CRN 96-33-3  
CMF C4 H6 O2



L48 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1996:523764 HCAPLUS

DN 125:171057

TI Grafting oligomers onto polymers

IN Padget, John Christopher; Bedells, Alison Dawn; Overbeek, Gerardus Cornelis

PA Zeneca Limited, UK; Zeneca Resins B.V.

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08F291-00

ICS C09D151-00; C09J151-00; C08L051-00

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9619512	A1	19960627	WO 1995-EP5021	19951219
	W:	AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9643875	A1	19960710	AU 1996-43875	19951219
	EP 799259	A1	19971008	EP 1995-942696	19951219
	EP 799259	B1	19990707		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE			
	AT 181933	E	19990715	AT 1995-942696	19951219
	ES 2133839	T3	19990916	ES 1995-942696	19951219
	US 5981642	A	19991109	US 1997-849907	19970805
PRAI	GB 1994-26048	A	19941221		
	GB 1995-15719	A	19950801		
	WO 1995-EP5021	W	19951219		

- AB A water-sol. org. oligomer(s) is grafted onto an org. polymer(s) in aq. latex form by free-radical polymn. of .gtoreq.1 monomer in a water-based mixt. of a water-sol. oligomer(s) and an aq. latex of a polymer(s). The extent of grafting is easily controlled. The products exhibit better response to associative thickeners (e.g., in paint formulations), coating compn. open time, and coating film properties than blends of the corresponding oligomer(s) and the polymer(s). A typical grafted product was manufd. by free-radical polymn. of Me methacrylate (I) in a mixt. of a 28.1% aq. 20:80 methacrylic acid-I copolymer soln. and a 45% solids 5:20:50:25 acrylic acid-Bu acrylate-Bu methacrylate-I copolymer latex.
- ST oligomer grafting polymer; methacrylate oligomer grafting acrylic polymer; coating oligomer grafted polymer
- IT Adhesives  
(grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for adhesives)
- IT Inks  
(grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for inks)
- IT Polishing materials  
(grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for polishes)
- IT Polyamides, reactions  
Polyesters, reactions  
Urethane polymers  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oligomer; grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers)
- IT Polyesters, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic, graft, grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers)
- IT Polymerization  
(graft, grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for coatings)
- IT Coating materials  
(lacquers, grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for lacquers)
- IT Coating materials  
(paints, grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for paints)
- IT Acrylic polymers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyester-, graft, grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers)
- IT Alkenes  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(polymers, oligomer; grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers)
- IT Coating materials  
(varnishes, grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for varnishes)
- IT 180604-56-2P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(crosslinked coating; grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers)

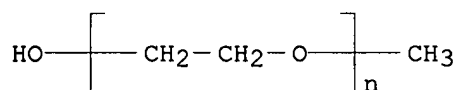
- IT 180348-59-8P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (crosslinked coating; grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for coatings)
- IT 180468-78-4P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)  
 (grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for coatings)
- IT 180348-58-7P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for coatings)
- IT 180254-05-1P, Acrylic acid-butyl acrylate-butyl methacrylate-methacrylic acid-methyl methacrylate graft copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for coatings)
- IT 180468-78-4P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP (Preparation); USES (Uses)  
 (grafting oligomers onto polymers in aq. media in presence of free-radical-polymerizable monomers for coatings)
- RN 180468-78-4 HCAPLUS
- CN 1,3-Benzenedicarboxylic acid, sulfo-, monosodium salt, polymer with 1,4-benzenedicarboxylic acid, butyl 2-methyl-2-propenoate, butyl 2-propenoate, 4-cyclohexene-1,2-dicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2,2'-oxybis[ethanol] and 2-propenoic acid, ester with .alpha.-methyl-.omega.-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 9004-74-4

CMF (C2 H4 O)<sub>n</sub> C H4 O

CCI PMS



CM 2

CRN 180254-06-2

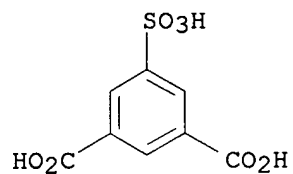
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CCI PMS

CM 3

CRN 6362-79-4

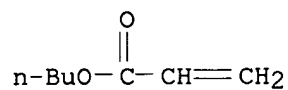
CMF C8 H6 O7 S . Na



● Na

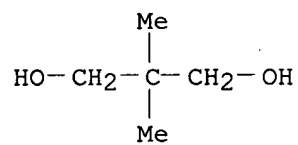
CM 4

CRN 141-32-2  
CMF C7 H12 O2



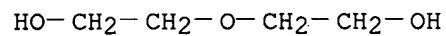
CM 5

CRN 126-30-7  
CMF C5 H12 O2



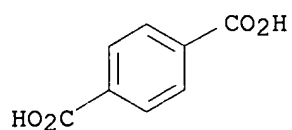
CM 6

CRN 111-46-6  
CMF C4 H10 O3



CM 7

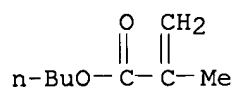
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CMF C8 H6 O4



CM 8

CRN 97-88-1

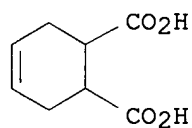
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CM 9

CRN 88-98-2

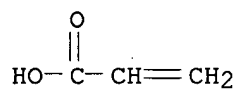
CMF C8 H10 O4



CM 10

CRN 79-10-7

CMF C3 H4 O2



L48 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1996:241585 HCAPLUS  
 DN 124:268454  
 TI Water permeable paving materials and their application  
 IN Okamoto, Taneo; Shimooka, Shizuo  
 PA Kanebo Nsc Kk, Japan  
 SO Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM E01C007-30  
 ICA C08F290-06  
 CC 58-4 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08013407	A2	19960116	JP 1994-146744	19940628
PRAI	JP 1994-146744		19940628		

AB The paving materials are aggregates mixed with a binder, which contains a polymerizable unsatd. monomer, a vinyl ester resin, an air oxidizable component, and a thixotropic agent. The paving mixts. are applied on substrates.

ST water permeable pavement polymer aggregate mixt; thixotropic additive polymer aggregate paving mixt; unsatd polyester water permeable pavement

IT Pavements and Roads  
(binder compns. for water permeable paving materials)

IT 36425-15-7P 167747-71-9P 175596-67-5P **175596-68-6P**  
175596-69-7P  
RL: **IMF (Industrial manufacture)**; PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); **PREP (Preparation)**; PROC (Process); USES (Uses)  
(binder compns. for water permeable paving materials)

IT 80-62-6, Methyl methacrylate 97-86-9, Iso-butyl methacrylate 97-88-1, n-Butyl methacrylate 141-32-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(binder compns. for water permeable paving materials)

IT **175596-68-6P**  
RL: **IMF (Industrial manufacture)**; PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); **PREP (Preparation)**; PROC (Process); USES (Uses)  
(binder compns. for water permeable paving materials)

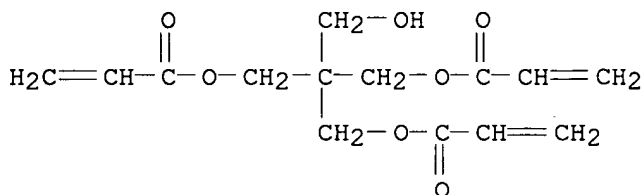
RN 175596-68-6 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 3524-68-3

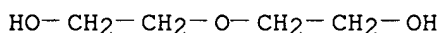
CMF C14 H18 O7



CM 2

CRN 111-46-6

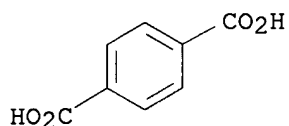
CMF C4 H10 O3



CM 3

CRN 100-21-0

CMF C8 H6 O4



L48 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1995:838997 HCAPLUS

DN 123:325722

TI Binder resin for electrophotography, its manufacture, and toner composition for electrophotography

IN Aoki, Katsutoshi

PA Kao Corp, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03G009-08

ICS G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07181718	A2	19950721	JP 1993-327041	19931224
PRAI	JP 1993-327041		19931224		

AB The binder resin, which may have a softening point of 95.0-170.0.degree. and a glass transition point of 50.0-80.0.degree., comprises a fluoromica of .alpha.MF..beta.(aMgF2.bMgO)..gamma.SiO2 (M = Na, Li, K; .alpha. = 0.1-2; .beta. = 2-3.5; .gamma. = 3-4; a, b = 0-1, a + b = 1). The fluoromica may be obtained by heat-treatment of mixed micropowders of 10-35 wt.% of M2SiF6 (M = Na, Li, K) and talc. The toner compn. contains the electrophotog. binder resin, colorant and charge controlling agent. In the manuf., the fluoromica is added in the synthetic process of the binder resin. The binder resin shows good chargeability, transparency and low-temp. fixability.

ST fluoromica electrophotog binder resin toner

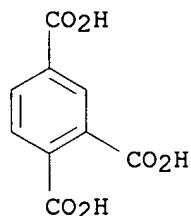
IT Polyesters, preparation  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(binder resin for electrophotog. with fluoromica)

IT Mica-group minerals, preparation  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of fluoromica from talc and alkali fluorosilicate)

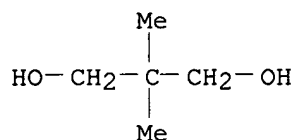
IT Electrophotographic developers  
(toners, fluoromica-contg. binder resin for electrophotog. toner)

IT Polyesters, preparation

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (vinyl group-contg., binder resin for electrophotog. with fluoromica)  
 IT 25213-39-2P, Styrene-butyl methacrylate copolymer 89993-85-1P  
 164254-86-8P 164366-98-7P  
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (**binder** resin for electrophotog. with fluoromica)  
 IT 14807-96-6, Talc, reactions 16893-85-9, Disodium hexafluorosilicate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (in prepn. of fluoromica from talc and alkali fluorosilicate)  
 IT 164254-86-8P  
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
 (**binder** resin for electrophotog. with fluoromica)  
 RN 164254-86-8 HCAPLUS  
 CN 1,2,4-Benzenetricarboxylic acid, polymer with 1,3-benzenedicarboxylic acid, butyl 2-methyl-2-propenoate, 2,2-dimethyl-1,3-propanediol, ethenylbenzene and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 528-44-9  
 CMF C9 H6 O6

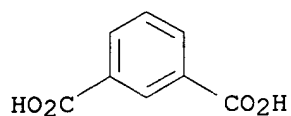


CM 2  
 CRN 126-30-7  
 CMF C5 H12 O2



CM 3  
 CRN 121-91-5  
 CMF C8 H6 O4

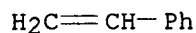




CM 4

CRN 100-42-5

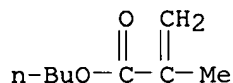
CMF C8 H8



CM 5

CRN 97-88-1

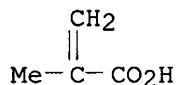
CMF C8 H14 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



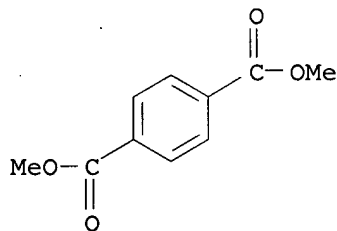
L48 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1995:571019 HCAPLUS  
 DN 123:22117  
 TI Polyesters containing unsaturated end groups for low-temperature fixing  
 electrophotographic toner binders  
 IN Bayley, Robert D.; Fox, Carol A.; Hoffend, Thomas; Packson, James R.;  
 Sacripante, Guerino G.  
 PA Xerox Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03G009-087  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07064329	A2	19950310	JP 1994-174496	19940726
PRAI	US 1993-100937		19930803		
AB	The title polyesters contains a monofunctional unsatd. end group(s). The toner using the above polyesters showed excellent offset resistance and superior vinyl offset properties.				
ST	electrophotog development toner polyester binder				
IT	Polyesters, preparation				
	RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)				
	(electrophotog. toner binders)				
IT	Electrophotographic developers				
	(toners, polyesters contg. unsatd. end groups for low-temp. fixing electrophotog. toner binders)				
IT	162752-35-4P	163310-38-1P	163310-39-2P	163310-40-5P	
	163310-41-6P				
	RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)				
	(electrophotog. toner binders)				
IT	163310-38-1P 163310-39-2P 163310-41-6P				
	RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)				
	(electrophotog. toner binders)				
RN	163310-38-1 HCAPLUS				
CN	1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with butyl 2-methyl-2-propenoate, 2,2'-oxybis[ethanol] and 1,2-propanediol (9CI) (CA INDEX NAME)				

CM 1

CRN 120-61-6

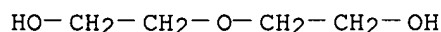
CMF C10 H10 O4



CM 2

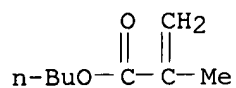
CRN 111-46-6

CMF C4 H10 O3



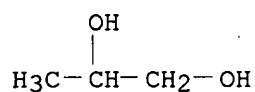
CM 3

CRN 97-88-1  
CMF C8 H14 O2



CM 4

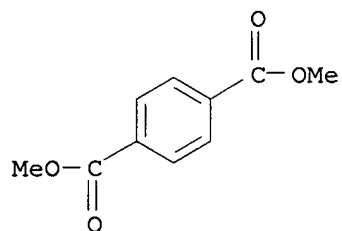
CRN 57-55-6  
CMF C3 H8 O2



RN 163310-39-2 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with methyl  
2-methyl-2-propenoate, 2,2'-oxybis[ethanol] and 1,2-propanediol, graft  
(9CI) (CA INDEX NAME)

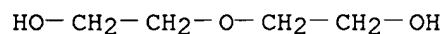
CM 1

CRN 120-61-6  
CMF C10 H10 O4



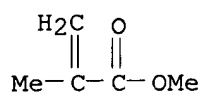
CM 2

CRN 111-46-6  
CMF C4 H10 O3



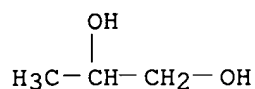
CM 3

CRN 80-62-6  
CMF C5 H8 O2



CM 4

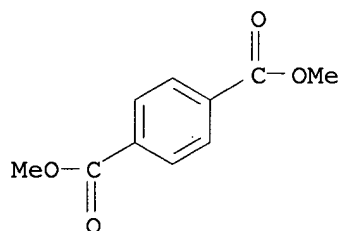
CRN 57-55-6  
CMF C3 H8 O2



RN 163310-41-6 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with butyl  
2-methyl-2-propenoate, 2,2'-oxybis[ethanol] and 1,2-propanediol, graft  
(9CI) (CA INDEX NAME)

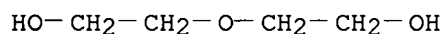
CM 1

CRN 120-61-6  
CMF C10 H10 O4



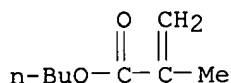
CM 2

CRN 111-46-6  
CMF C4 H10 O3



CM 3

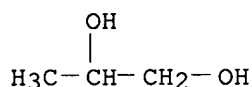
CRN 97-88-1  
CMF C8 H14 O2



CM 4

CRN 57-55-6

CMF C3 H8 O2



L48 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1995:331339 HCAPLUS

DN 123:34795

TI Electron beam-curable adhesives containing polyesters for laminating plastics and metals

IN Nishimoto, Tadashi; Suzuki, Yoshio; Shioda, Atsushi; Masuda, Hideki; Tako, Noboru

PA Kansai Paint Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09J004-02

ICA C08F299-04

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06299121	A2	19941025	JP 1993-118906	19930412
PRAI	JP 1993-118906		19930412		

AB Title adhesives, useful for laminating polyester films and metal plates for manuf. of cans, etc., contain (A) 100 parts mixts. of (a) 100 parts polyesters of no. av. mol. wt. (M) 7000-40,000 and (b) 2-200 parts polyester oligomers of M 300-5000 including 0.3-5.0 mol/kg polymerizable unsatd. double bonds (X), (B) 0.2-50 parts maleated-modified polypropylene and/or [(CH<sub>2</sub>:CR)CO<sub>2</sub>(CH<sub>2</sub>)<sub>m</sub>]nOPO(OH)<sub>3-n</sub> (R = H, Me; m = 2, 3; n = 1, 2) as agents for enhancing adhesion, and (C) 0.5-250 parts stress-relaxation agents. Thus, 227 parts 30% soln. of 18.3:11.7:11.9:20.5:37.6 di-Me terephthalate-di-Me isophthalate-ethylene glycol-neopentyl glycol-azelaic acid copolymer (M 30,000) in 1:1 mixt. of MEK and cyclohexanone, 17 parts 1.0:2.0:1.0:3.0 (mol) trimethylolpropane-triethylene glycol-1,6-hexanediol-adipic acid copolymer acrylate (M 850, X 3.0 mol/kg), 0.5 part methacryloyloxyethyl phosphate, 0.5 part bis(methacryloyloxyethyl) phosphate, and 50 parts Aerosil 300 were mixed and dild. with MEK to give 30%-solid adhesive soln. The soln. was gravure-coated onto E 5100 (polyester film), dried at 100.degree. for 10 s, laminated to a tinplate substrate, rolled at 180.degree., and electron beam-irradiated to give a test piece showing good resistance to whitening after 30-min exposure to

- steam in autoclave at 125.degree..
- ST polyester vinyl polymer blend adhesive; electron beam curable adhesive; metal plate polyester film adhesive; can polyester film metal adhesive; unsatd acid polyester ester adhesive; maleic anhydride modified polypropylene tackifier; phosphate ester unsatd tackifier adhesive; acrylic polyester oligomer curable adhesive; stress relaxation silica blend adhesive; retort resistance metal laminate adhesive; steam pressure resistance adhesive can
- IT Crosslinking  
(electron beam crosslinking of polyester-based adhesive contg. vinyl components)
- IT Polyesters, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(electron beam-curable adhesives contg. polyesters and unsatd. polyester oligomers and vinyl compds. for laminating metal plates)
- IT Tinplate  
RL: MSC (Miscellaneous)  
(plates, substrates; electron beam-curable adhesives contg. polyesters and unsatd. polyester oligomers and vinyl compds. for laminating metal plates)
- IT Polyesters, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic, electron beam-curable adhesives contg. polyesters and unsatd. polyester oligomers and vinyl compds. for laminating metal plates)
- IT Adhesives  
(electron-beam-curable, electron beam-curable adhesives contg. polyesters and unsatd. polyester oligomers and vinyl compds. for laminating metal plates)
- IT 58086-24-1P 63929-60-2P 164203-76-3P 164204-73-3P 164204-74-4P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(electron beam-curable adhesives contg. polyesters and unsatd. polyester oligomers and vinyl compds. for laminating metal plates)
- IT **164204-76-6P**  
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)  
(electron beam-curable adhesives contg. polyesters and unsatd. polyester **oligomers** and vinyl compds. for laminating metal plates)
- IT 25038-59-9, PET, miscellaneous  
RL: MSC (Miscellaneous)  
(films, substrates; electron beam-curable adhesives contg. polyesters and unsatd. polyester oligomers and vinyl compds. for laminating metal plates)
- IT 7727-43-7, Barium sulfate  
RL: MOA (Modifier or additive use); USES (Uses)  
(stress-relaxation agents, Barifine; electron beam crosslinking of polyester-based adhesive contg. vinyl components)
- IT 13463-67-7, Titania, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(stress-relaxation agents, JR 300; electron beam crosslinking of polyester-based adhesive contg. vinyl components)
- IT 7631-86-9, Aerosil 300, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(stress-relaxation agents; electron beam crosslinking of polyester-based adhesive contg. vinyl components)

IT 164204-76-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (electron beam-curable adhesives contg. polyesters and unsatd. polyester oligomers and vinyl compds. for laminating metal plates)

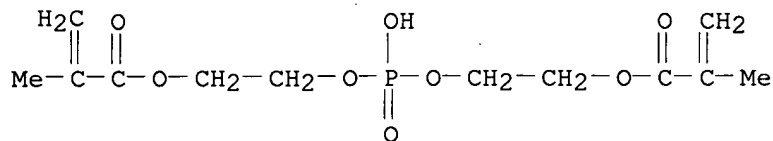
RN 164204-76-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol and nonanedioic acid, 2-propenoate, polymer with 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,6-hexanediol 2-propenoate, and 2-hydroxyethyl 2-methyl-2-propenoate phosphate and phosphinicobis(oxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 32435-46-4

CMF C12 H19 O8 P



CM 2

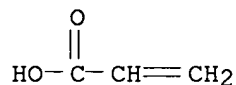
CRN 164204-75-5

CMF (C10 H10 O4 . C10 H10 O4 . C9 H16 O4 . C5 H12 O2 . C2 H6 O2)x . x C3  
 H4 O2

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

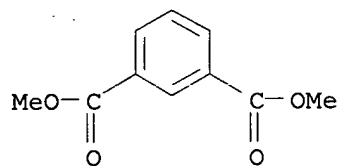
CRN 58086-24-1

CMF (C10 H10 O4 . C10 H10 O4 . C9 H16 O4 . C5 H12 O2 . C2 H6 O2)x  
 CCI PMS

CM 5

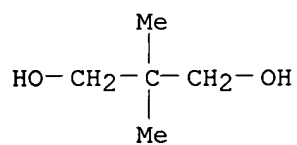
CRN 1459-93-4

CMF C10 H10 O4



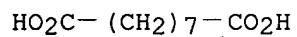
CM 6

CRN 126-30-7  
CMF C5 H12 O2



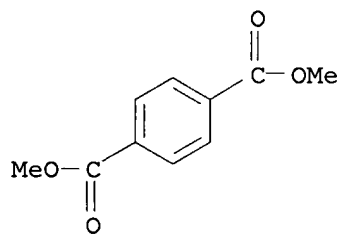
CM 7

CRN 123-99-9  
CMF C9 H16 O4



CM 8

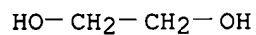
CRN 120-61-6  
CMF C10 H10 O4



CM 9

CRN 107-21-1  
CMF C2 H6 O2





CM 10

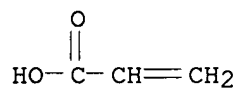
CRN 69772-12-9

CMF (C6 H14 O4 . C6 H14 O3 . C6 H14 O2 . C6 H10 O4)x . x C3 H4 O2

CM 11

CRN 79-10-7

CMF C3 H4 O2



CM 12

CRN 68310-36-1

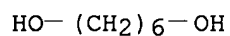
CMF (C6 H14 O4 . C6 H14 O3 . C6 H14 O2 . C6 H10 O4)x

CCI PMS

CM 13

CRN 629-11-8

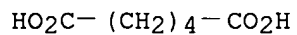
CMF C6 H14 O2



CM 14

CRN 124-04-9

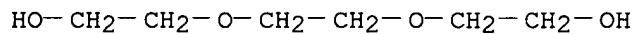
CMF C6 H10 O4



CM 15

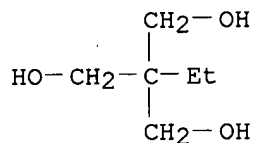
CRN 112-27-6

CMF C6 H14 O4



CM 16

CRN 77-99-6  
CMF C6 H14 O3

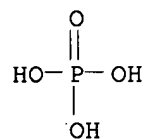


CM 17

CRN 52628-03-2  
CMF C6 H10 O3 . x H3 O4 P

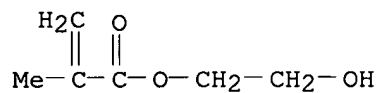
CM 18

CRN 7664-38-2  
CMF H3 O4 P



CM 19

CRN 868-77-9  
CMF C6 H10 O3



L48 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
AN 1994:137310 HCAPLUS  
DN 120:137310  
TI Magnetic coating materials containing polyurethane binders  
IN Kinoshita, Koji; Nakama, Yasutaka; Komazaki, Shigeru; Oooka, Masataka  
PA Dainippon Ink & Chemicals, Japan  
SO Jpn. Kokai Tokkyo Koho, 16 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C09D005-23  
ICS C09D175-04; G11B005-702  
CC 42-10 (Coatings, Inks, and Related Products)

## Section cross-reference(s): 77

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05230398	A2	19930907	JP 1992-31964	19920219
PRAI	JP 1992-31964		19920219		

AB The title coating materials providing recording media with good smoothness and abrasion resistance, comprise vinyl polymer-polyurethane block copolymers, magnetic powders, polyurethanes, and optionally polyisocyanates. Thus, styrene 180, Me methacrylate 550, 2-hydroxyethyl methacrylate 50, and 2-acrylamido-2-methylpropanesulfonic acid 20 parts were polymd. in the presence of 500 parts polymeric azo initiator [prepd. from azobis(cyanopropanol), dipropylene glycol, and HDI] to give a block copolymer with no.-av. mol. wt. 220 .times. 102 (I). Then, a soln. contg. I 70, adipic acid-1,4-butanediol-TDI copolymer 30, Fe-Ni alloy powder 250, carbon black 8.6, a lubricant 3.5, Burnock D 750 14.3, and MEK 738 parts was applied on a PET film, dried, and calendered to give a smooth magnetic tape with 45.degree. gloss 115%, Taber abrasion test 655 cycles, and good storage stability at 70.degree. and 95% relative humidity.

ST polyurethane binder magnetic recording coating; polyacrylate polyurethane magnetic coating smoothness; abrasion resistance magnetic coating polyurethane

IT Coating materials  
(abrasion-resistant, magnetic, binders for, block vinyl polymer-polyurethanes as, for recording tapes)

IT Urethane polymers, preparation  
RL: PREP (Preparation)  
(acrylic, block, prepn. of, binders, for abrasion-resistant smooth magnetic coatings)

IT Recording materials  
(magnetic, coatings for, block vinyl polymer-polyurethane binders in)

IT Urethane polymers, preparation  
RL: PREP (Preparation)  
(vinyl polymer-, block, prepn. of, binders, for abrasion-resistant smooth magnetic coatings)

IT 152242-14-3P 152242-15-4P 152242-16-5P 152242-17-6P  
152242-18-7P 152242-19-8P 153301-21-4P  
RL: PREP (Preparation)  
(prepn. of, binders, for smooth magnetic coatings for recording materials)

IT 152242-18-7P  
RL: PREP (Preparation)  
(prepn. of, binders, for smooth magnetic coatings for recording materials)

RN 152242-18-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2'-azobis[3-hydroxy-2-methylpropanenitrile], 1,4-benzenedicarboxylic acid, Burnock D 750, 1,4-butanediol, 1,6-diisocyanatohexane, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, ethenylbenzene, hexanedioic acid, methyl 2-methyl-2-propenoate and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, block (9CI) (CA INDEX NAME)

CM 1

CRN 50813-68-8

CMF Unspecified

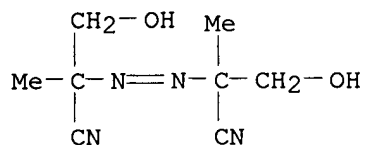
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 19706-80-0

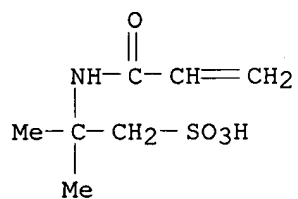
CMF C8 H12 N4 O2



CM 3

CRN 15214-89-8

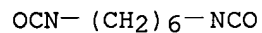
CMF C7 H13 N O4 S



CM 4

CRN 822-06-0

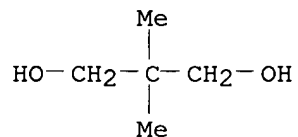
CMF C8 H12 N2 O2



CM 5

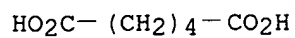
CRN 126-30-7

CMF C5 H12 O2



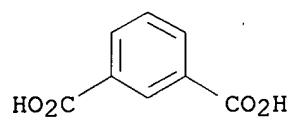
CM 6

CRN 124-04-9  
CMF C6 H10 O4



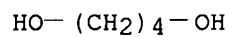
CM 7

CRN 121-91-5  
CMF C8 H6 O4



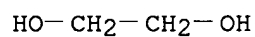
CM 8

CRN 110-63-4  
CMF C4 H10 O2



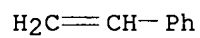
CM 9

CRN 107-21-1  
CMF C2 H6 O2



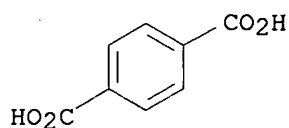
CM 10

CRN 100-42-5  
CMF C8 H8



CM 11

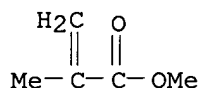
CRN 100-21-0  
CMF C8 H6 O4



CM 12

CRN 80-62-6

CMF C5 H8 O2



L48 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:540595 HCAPLUS

DN 117:140595

TI Electrostatographic toner for heat-roll fixing

IN Kuriyama, Kazuya; Matsukuri, Kinji; Sugawara, Ryoza; Furuta, Hideyuki; Tomita, Yasushi

PA Dainippon Inki Kagaku Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04086828	A2	19920319	JP 1990-203720	19900731
PRAI	JP 1990-203720		19900731		

AB The title toner contains a binder resin obtained by copolymn. of an unsatd. polyester and vinyl monomers including a multifunctional vinyl monomer(s) 0.01 - 5.0 wt.% relative to the total amt. of vinyl monomers used. The unsatd. polyester may incorporate an aliph. unsatd. dibasic acid(s) 0.2 - 5.0 wt.% and have no. av. mol. wt. 500 - 10,000. This toner shows good fixability and improved resistance to offset.

ST electrostatog toner binder heat roll fixing; graft copolymer binder electrophotog toner

IT Electrography

(developers, toners, binders, graft copolymers as, for good fixability)

IT Electrophotographic developers

(toners, binders, graft copolymers as, for good fixability)

IT **143410-78-0P**

RL: PREP (Preparation)

(prepn. of, as **binder**, electrostatog toner contg.)

IT 143410-77-9P

RL: PREP (Preparation)

(prepn. of, as binder, for electrostatog toner)

IT **143410-78-0P**

RL: **PREP (Preparation)**

(prepn. of, as **binder**, electrostatog toner contg.)

RN 143410-78-0 HCAPLUS

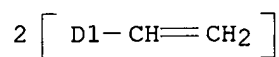
CN 1,4-Benzenedicarboxylic acid, polymer with butyl 2-propenoate, diethenylbenzene, 2,2-dimethyl-1,3-propanediol, ethenylbenzene, 2,5-furandione and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 1321-74-0

CMF C10 H10

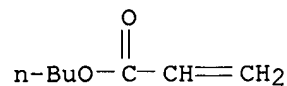
CCI IDS



CM 2

CRN 141-32-2

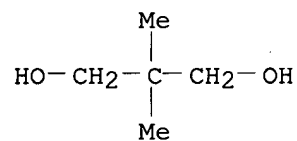
CMF C7 H12 O2



CM 3

CRN 126-30-7

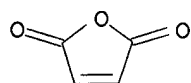
CMF C5 H12 O2



CM 4

CRN 108-31-6

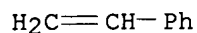
CMF C4 H2 O3



CM 5

CRN 100-42-5

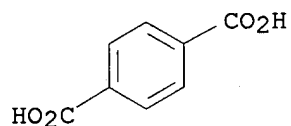
CMF C8 H8



CM 6

CRN 100-21-0

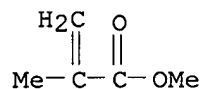
CMF C8 H6 O4



CM 7

CRN 80-62-6

CMF C5 H8 O2



L48 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2003 ACS

AN 1990:79614 HCAPLUS

DN 112:79614

TI Polyurethanes as binders for coatings

IN Dejima, Hironari; Takano, Masahiro; Hirayama, Yoichi; Akasaka, Nobuyuki

PA Fujikura Kasei Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G018-83

ICS C08G018-65

ICA C09D003-72; C09J003-16

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35

FAN.CNT 1

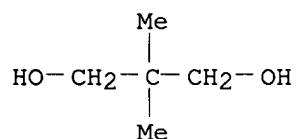
PATENT NO.

KIND DATE

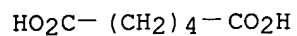
APPLICATION NO. DATE



PI JP 01188515 A2 19890727 JP 1988-10762 19880122  
 PRPI JP 1988-10762 19880122  
 AB Title polymers, useful for coatings on polystyrene substrates, are prepd. by polymg. (meth)acryloyl-contg. diols, high-mol.-wt. diols, chain extenders, and diisocyanates and grafting (meth)acrylate esters on the resulting polymers. Thus, glycerol methacrylate 2.56, adipic acid-dimethyl terephthalate-ethylene glycol-neopentyl glycol copolymer 403.3, 1,4-butanediol 18.7, MDI 100, dibutyltin dilaurate 0.3, MEK 600, and toluene 624 parts were heated at 70-80.degree. under N to give a polymer with no.-av. mol. wt. 20,000 and methacryloyl content 2 mol%, 300 parts of which was heated with 90 parts iso-Bu methacrylate and AIBN in MEK at 70.degree. and dild. with MEK to 30% solids. The soln. with viscosity 230 cP was storage-stable and formed a transparent film on a polystyrene sheet with good adhesion.  
 ST acryloyl contg polyurethane binder coating; graft acrylate polyurethane binder coating; transparency polyurethane binder coating; storage stability polyurethane binder coating; polystyrene coating polyurethane binder  
 IT Coating materials  
 (binders for, (meth)acrylate-grafted (meth)acryloyl-contg. polyurethanes as, with good adhesion to polystyrene)  
 IT 9003-53-6, Polystyrene  
 RL: USES (Uses)  
 (coatings for, binders for)  
 IT 125198-72-3P 125198-73-4P  
 RL: PREP (Preparation)  
 (manuf. of, **binders** for coatings, storage-stable, transparent, with good adhesion to polystyrene)  
 IT 125198-72-3P 125198-73-4P  
 RL: PREP (Preparation)  
 (manuf. of, **binders** for coatings, storage-stable, transparent, with good adhesion to polystyrene)  
 RN 125198-72-3 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,4-butanediol, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, hexanedioic acid, 1,1'-methylenebis[4-isocyanatobenzene], 2-methylpropyl 2-methyl-2-propenoate and 1,2,3-propanetriol mono(2-methyl-2-propenoate), block, graft (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 126-30-7  
 CMF C5 H12 O2

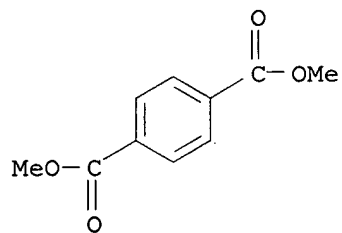


CM 2  
 CRN 124-04-9  
 CMF C6 H10 O4



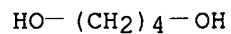
CM 3

CRN 120-61-6  
CMF C10 H10 O4



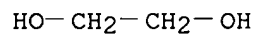
CM 4

CRN 110-63-4  
CMF C4 H10 O2



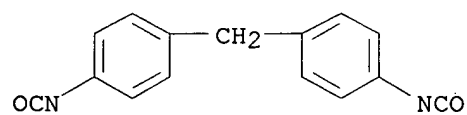
CM 5

CRN 107-21-1  
CMF C2 H6 O2



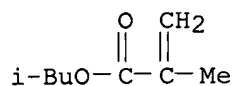
CM 6

CRN 101-68-8  
CMF C15 H10 N2 O2



CM 7

CRN 97-86-9  
CMF C8 H14 O2

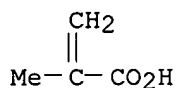


CM 8

CRN 50853-28-6  
CMF C7 H12 O4  
CCI IDS

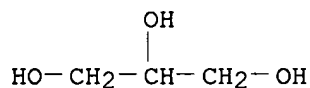
CM 9

CRN 79-41-4  
CMF C4 H6 O2



CM 10

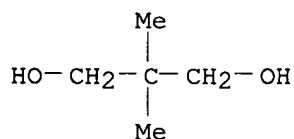
CRN 56-81-5  
CMF C3 H8 O3



RN 125198-73-4 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,4-butanediol, butyl 2-methyl-2-propenoate, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, hexanedioic acid, 1,1'-methylenebis[4-isocyanatobenzene] and 1,2,3-propanetriol mono(2-methyl-2-propenoate), block, graft (9CI) (CA INDEX NAME)

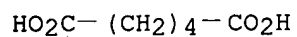
CM 1

CRN 126-30-7  
CMF C5 H12 O2



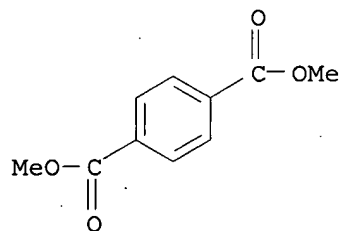
CM 2

CRN 124-04-9  
CMF C6 H10 O4



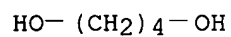
CM 3

CRN 120-61-6  
CMF C10 H10 O4



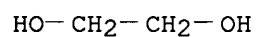
CM 4

CRN 110-63-4  
CMF C4 H10 O2



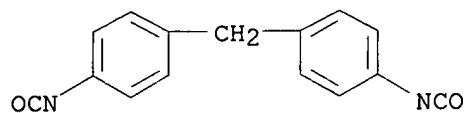
CM 5

CRN 107-21-1  
CMF C2 H6 O2



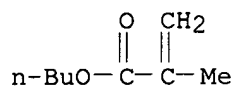
CM 6

CRN 101-68-8  
CMF C15 H10 N2 O2



CM 7

CRN 97-88-1  
CMF C8 H14 O2

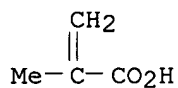


CM 8

CRN 50853-28-6  
CMF C7 H12 O4  
CCI IDS

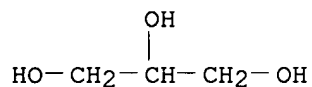
CM 9

CRN 79-41-4  
CMF C4 H6 O2



CM 10

CRN 56-81-5  
CMF C3 H8 O3



L48 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
AN 1987:34752 HCAPLUS  
DN 106:34752  
TI Radiation-curable binders for magnetic coating materials  
IN Ansel E, Robert; Ukaji, Takashi; Bettsho, Keiichi; Kumano, Koji;  
Matsumura, Yoshio  
PA DeSoto, Inc., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D005-00

ICS C09D003-727; C09D005-23

ICA C08F299-02

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 37, 77

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61181872	A2	19860814	JP 1985-16357	19850130
PRAI	JP 1985-16357		19850130		
AB	The title binders having good compatibility with magnetic powders and low viscosity for good workability and leveling and forming abrasion-resistant coatings with excellent magnetic characteristics were described including various acrylic-terminated polymers (contg. urethane, urea, amide, and/or ester linkages) of mol. wt. 2000-100,000. Thus, a mixt. of methylenebis(4-cyclohexyl isocyanate) 71.9, dibutyltin dilaurate 0.2, and MEK 300 g at 60.degree. was treated with a mixt. of 125.6 g Teracol 650 and 15.5 g Epikote 828 diacrylate, stirred at 60.degree. for 4 h, treated with 9.6 g pentaerythritol triacrylate at 60.degree. for 2 h, and treated with 77 g HOZQZQZOH (Z = polyoxytetramethylene; Q = pyromellitic acid residue) at 60.degree. for 7 h to give an electron beam-curable binder resin.				
ST	acrylic electron beam curable coating; magnetic coating electron beam curable; polyurethane acrylate coating radiation curable; epoxy acrylate polyurethane coating; polyoxytetramethylene polypyromellitate acrylic coating				
IT	Coating materials (electron-beam-curable, magnetic, binders for, urethane- and urea- and amide-group-contg. acrylic polymers as)				
IT	Recording materials (magnetic, binders for, urethane- and urea- and amide-group-contg. acrylic polymers as, electron beam-curable)				
IT	106056-72-8P	106072-77-9P	106100-63-4P	106100-64-5P	106209-18-1P
	106209-62-5P	106222-72-4P	106222-74-6P	106222-75-7P	106247-18-1P
	<b>106284-62-2P</b>				
	RL: <b>PREP (Preparation)</b> (manuf. of, as electron beam-curable <b>binders</b> , for magnetic coatings)				
IT	<b>106284-62-2P</b>				
	RL: <b>PREP (Preparation)</b> (manuf. of, as electron beam-curable <b>binders</b> , for magnetic coatings)				
RN	106284-62-2 HCAPLUS				
CN	Hexanedioic acid, polymer with 1,4-butanediol, 1,2-ethanediamine, 1,2-ethanediol, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] ether with 4,6-bis[[ (2-hydroxymethylethyl) amino] carbonyl]-1,3-benzenedicarboxylic acid (5:4) bis(2-aminomethylethyl) ether, 2-(hydroxymethyl)-2-[[ (1-oxo-2-propenyl) oxy]methyl]-1,3-propanediyl di-2-propenoate, .alpha.-[2-hydroxy-3-[(1-oxo-2-propenyl) oxy]propyl]-.omega.-[2-hydroxy-3-[(1-oxo-2-propenyl) oxy]propoxy]poly(oxy-1,2-ethanediyl) and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)				

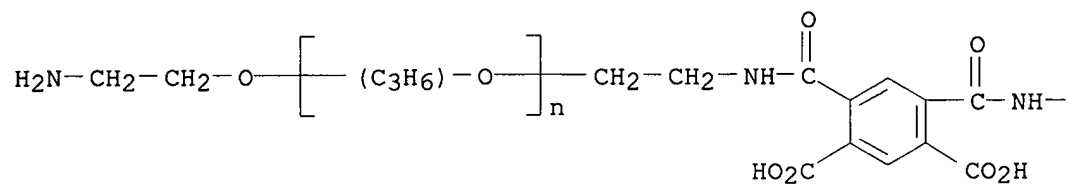
CM 1

CRN 106284-61-1

CMF (C3 H6 O)<sub>n</sub> (C3 H6 O)<sub>n</sub> (C3 H6 O)<sub>n</sub> (C3 H6 O)<sub>n</sub> (C3 H6 O)<sub>n</sub> C70 H88 N10  
O26

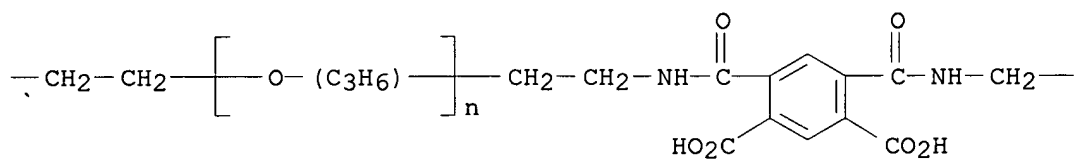
CCI IDS, PMS

PAGE 1-A

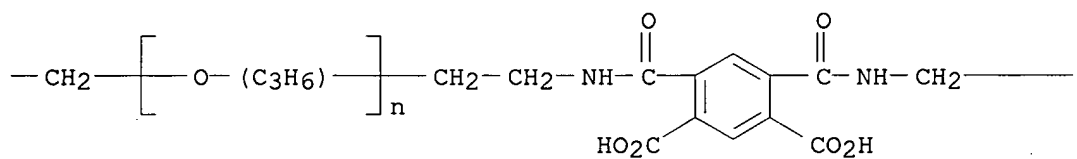


10 ( D1-Me )

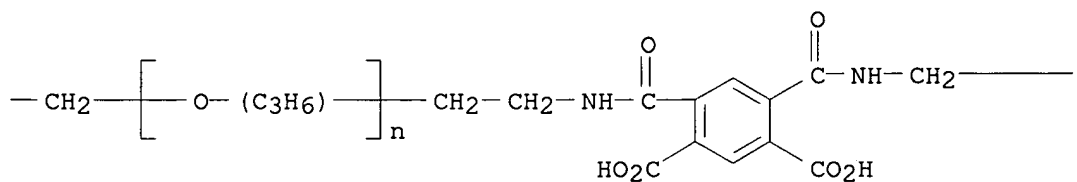
PAGE 1-B



PAGE 1-C



PAGE 1-D

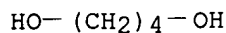






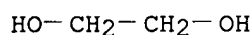
CM 5

CRN 110-63-4  
CMF C4 H10 O2



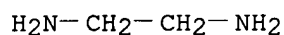
CM 6

CRN 107-21-1  
CMF C2 H6 O2



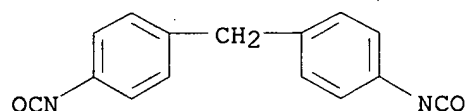
CM 7

CRN 107-15-3  
CMF C2 H8 N2



CM 8

CRN 101-68-8  
CMF C15 H10 N2 O2



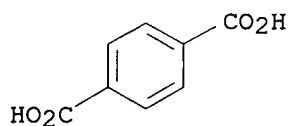
L48 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2003 ACS  
AN 1969:29403 HCAPLUS  
DN 70:29403  
TI Preparation and three-dimensional polymerization of polyester methacrylates  
AU Mikhailov, Marin; Budevskia, Kh.; Nenkov, G.; Gerdzhikova, S.  
CS Inst. Org. Chem., Sofia, Bulg.  
SO Journal of Polymer Science, Polymer Symposia (1968), Volume Date 1965, No. 16(Pt. 7), 3811-20  
CODEN: JPYCAQ; ISSN: 0360-8905  
DT Journal  
LA English  
CC 35 (Synthetic High Polymers)  
AB Two methods for the prepn. of polyester methacrylates are described: (1) Methacrylation of hydroxy-contg. oligoesters obtained by the

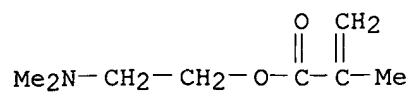
reesterification of the esters of alcs. and polyhydric acids with polyhydric alcs. Terephthalic, furan-2,5-dicarboxylic, and benzylphosphonic polyester methacrylates, which cannot be obtained by means of condensation telomerization, are synthesized by this method. (2) Addn. telomerization of mixts. of epoxy compds. with anhydrides of methacrylic and polyhydric acids. A closer study of this reaction revealed that it permits the prepn. of a wider range of polyester methacrylates than does condensation telomerization. The three-dimensional polymn. of some of the synthesized polyester methacrylates was investigated.

ST polymethacrylates; polyester methacrylates polymn; polymn polyester methacrylates; methacrylates polyester polymn  
 IT Polyesters, preparation  
 RL: PREP (Preparation)  
 (oligomeric, hydroxy-terminated, dimethacrylates)  
 IT Methacrylic acid  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (diester with polyester oligomers, prepn. of)  
 IT 9003-68-3P, preparation 27598-47-6P 27598-48-7P 28727-78-8  
 28728-19-0  
 RL: PREP (Preparation)  
 (oligomeric, hydroxy-terminated, dimethacrylate)  
 IT 27598-49-8P, preparation 27598-50-1P, preparation 27598-51-2P,  
 preparation 27707-54-6P, preparation 28724-20-1P 28724-21-2P  
 28724-22-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)  
 IT 9003-68-3P, preparation  
 RL: PREP (Preparation)  
 (oligomeric, hydroxy-terminated, dimethacrylate)  
 RN 9003-68-3 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 107-21-1  
 CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

CM 2  
 CRN 100-21-0  
 CMF C8 H6 O4





CM 2

CRN 190124-76-6

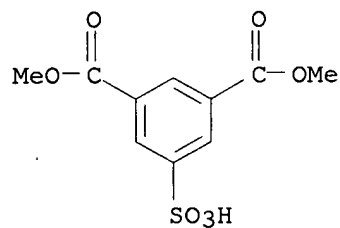
CMF (C10 H10 O7 S . C10 H10 O4 . C10 H10 O4 . C8 H10 O4 . C5 H12 O2 . C2 H6 O2 . Na)x

CCI PMS

CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

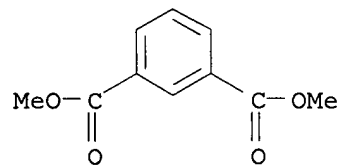


● Na

CM 4

CRN 1459-93-4

CMF C10 H10 O4



CM 5

CRN 126-30-7

CMF C5 H12 O2